

**EMOTIONAL DEVELOPMENT IN VIOLENT OFFENDERS,  
NON VIOLENT OFFENDERS AND SEXUAL VIOLATORS:  
AN EXPLORATORY STUDY**

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A thesis submitted in partial fulfilment  
of the requirements for the degree of Master of Sciences  
in Psychology in the University of Canterbury

by  
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University of Canterbury

1990

## ACKNOWLEDGEMENTS

I sincerely want to thank Steve Hudson for his encouragement and generous support throughout the entire preparation of this thesis.

Thanks to Mary Davenport and Sally Kendall for their invaluable help in typing the manuscript. Thanks also to Sally Baker for her constructive advice, Steven Cooper and Karyn Taylor for their assistance in the preparation of the final draft, and Nicholas Kendall for his assistance with the MacIntosh. Thanks also to Leon Bakker for his considerable assistance in the recruitment of subjects, and the staff at Paparua Prison for making the data collection phase, run smoothly.

I especially want to thank my sister Barbara Curtis, for her loyalty and friendship, particularly in the final stages of preparation, and Murray Gimblett for his patience and understanding.

A special thanks to my parents Beverley and Donald Curtis who, as always, have supported me whole-heartedly during the preparation and writing up of this thesis.

Finally I want to thank my subjects, who gave so generously of their time, and for sharing so honestly their lifes' stories.

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## ABSTRACT

Research on prisoners has developed from the early studies which examined a limited number of variables, such as hostility and empathy, in relation to psychopathy. More recent studies on psychopaths, violent, non-violent and sexual offenders tend to use a greater number of scales, measuring psychological (e.g., anxiety, hostility, depression), social (e.g., childhood and parental behaviour), demographic and physiological (e.g., EEG) variables. This literature has been reviewed, along with three theories of emotional development. While emotional development has generated many theoretical models, there has been surprisingly little empirical research in this area. The main aim of the current study was to examine whether a prisoners predominant type of crime (violent, non-violent, sexual and control) is related to their emotional development. Thirty nine subjects, (10 violent, 9 non violent, 10 sexual and 10 control) were given questionnaires on emotional development, anxiety and anger-provoking scenarios and seven other psychological variables. Social history information was obtained from an autobiographical questionnaire. Results indicate that sexual violaters are functioning at a higher level of emotional development, than violent and non violent offenders with non inmate controls functioning at the highest level of emotional development. Subjects with high levels of emotional development were less likely to abuse alcohol, drugs and experience somatic complaints. Contrary to the literature, the psychological variable anxiety and not depression, produced the most significant differences between groups, with violent offenders expressing less anxiety than the the other three groups. The results suggest that sexual violaters process and integrate their anxiety at a different level than violent or non violent offenders, which may be related to their sexual violation of women. Parental punishment and reward, in subjects families of origin, varied between the groups, with

sexual violaters and violent offenders reporting the most severe punishment. Examination of the psychological variables, did not produce significant results within the three prison groups, supporting the majority of the previous literature. The results were discussed in relation to the implications for treatment of violent, non violent and sexual violaters and the usefulness of devising a questionnaire similar to Lane and Schwartz's (1987) Levels of Emotional Awareness Scale, in order to examine the structure of other psychological variables, such as anger and anxiety.

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## CHAPTER ONE: REVIEW OF THE LITERATURE .

### 1-1 GENERAL INTRODUCTION

There has been a considerable interest in the study of emotional development over the last ten years. Prior to this, research was extremely limited. Recent advances involve new theoretical formulations, upon which empirical research has been based. Much of this work is exploratory and there are still many areas which require further investigation. One of these areas is the study of emotional development within the criminal population: How an offender interprets his own emotional experiences and emotional arousal, is an important issue for emotional development generally and with forensic psychology in particular. Do these individuals function at different levels of emotional development? If this is so, can a person's emotional development be measured? Why does one offender repeatedly rape women and another steal cars? What decides whether a criminal uses violence or not? It may be that 'type of crime' is related to a person's level of maturity or emotional development. Unfortunately very little attention has been paid to these specific questions. Empirical research on emotional development has, in the main, concentrated on the emotional development of children (Lewis, 1986; Sprinthall & Burke, 1985), and adolescents (Boyd & Huffman, 1984), but not on adults. However more general theories of emotional development have been produced which cover the spectrum from birth to adulthood (Giblin, 1981; Izard & Malatesta, 1984; Lane & Schwartz, 1987).

In order to discuss the issue of emotional development of violent, non violent and sexual offenders the following introductory section is organized as follows: Part I briefly outlines a definition of emotion and its relevance to emotional development . Part II is concerned with the theoretical formulations of emotional development from a historical perspective. Three of the recent theories are discussed in detail from the emotion literature in terms of what they consider to be the relevant factors in emotional development and the effect they have on adult development, (Giblin, 1984; Izard & Malatesta, 1984; Lane & Schwartz, 1987). In Part III the empirical research is divided into five sections, (i) the early literature (1962 -



1983) on offenders, mostly in relation to psychopathy, intelligence, overcontrolled hostility, empathy and responses to anxiety and anger - provoking situations (ii) the later research (1984 - 1989) examines violent offenders' assaultive behaviour and sexual aggressives on variables such as demographic variables, psychological variables (e.g., hostility, assertiveness, anger, depression) and physiological variables, (iii) a general review of a recent concept, alexithymia, and its relationship to violent offenders, non violent offenders and sexual violaters, (iv) anger and its relationship to hostility and aggression and finally (v) which outlines the measurement of psychological variables. In Part IV the rationale for the current study is introduced and the hypotheses outlined.

## 1-2 DEFINITION OF EMOTION

Empirical research involving emotion is fraught with difficulties because of the complex nature of emotion. The definitions of emotion vary tremendously but most tend to include emotion as i) a personal, subjective feeling ii) a conscious awareness of bodily states iii) affecting physical structures iv) occurring in a particular situation v) producing a patterned bodily response and vi) causing a person to behave in a particular way. Any research or theory of emotion addresses only an aspect of emotion as it has acquired an extremely broad meaning (Strongman, 1987). There are many definitions of emotion, but one in particular stands out as being able to focus on the key points, and that is by Kleinginna and Kleinginna (1981)

Emotion is a complex set of interactions among subjective and objective factors, mediated by neural/hormonal systems, which can a) gave rise to affective experiences such as feelings of arousal, pleasure/displeasure; b) generate cognitive processes such as emotionally relevant perceptual effects, appraisals, labelling processes; c) activate widespread physiological adjustments to the arousing conditions; and d) lead to behaviour that is often, but not always, expressive, goal-directed, and adaptive.

This definition provides a structure in order to interpret the current studies starting point. The questions being asked in the current study concern Kleinginna and Kleinginna's points a) and b). How does an emotional arousal and cognitive processes develop in an individual? What

determines whether an individual's behaviour is adaptive or maladaptive? The next section answers a few of the questions raised in Part I.

### 1-3 THEORIES OF EMOTIONAL DEVELOPMENT

Throughout history there have been many theories of emotion proposed often addressing a specific component of emotion e.g., Darwin's (1872) theory of emotion was concerned with the contribution of the somatic system and facial muscles to emotional experience. James (1884; cited in Lange & James, 1922) 'peripheral theory of emotion' proposed that emotional experience is determined by the appreciation of changes occurring in the viscera or the motor system and these changes are initiated directly, by the perception of an appropriate stimulus - 'we are afraid because we run, we do not run because are afraid'. Schachter's (1964, 1970; cited in Taylor et al., 1980) 'attribution theory of emotion' assumes that a state of physiological arousal is necessary but not a sufficient condition for an emotional experience. They believe that an attributional process is necessary to explain the most likely reason for the physiological arousal. Plutchik (1983) believes that emotions are ways to gain some control over our experiences. Our cognitive interpretations are aimed at reducing any threat to our existence and help regulate our equilibrium.

The relationship between the three components of our emotion - the physiological, the behavioural and the psychological are still, even now, not clearly understood. The earlier theories tended to deal mainly with one component in isolation e.g., the James theory is more physiological and concerned with the somatic component. Darwin and Schachter are more behavioural, while Plutchik concentrates on the more psychological components. The three theories considered next have a developmental approach which describes the process of emotional development from birth to adulthood. It is the developmental approach which seems to offer the best explanation and understanding of all three components of emotion (Izard, 1984). Lane and Schwartz (1987) believe that the above theories can also be incorporated into a developmental framework.

#### 1-3-1 Giblin (1981)

The first theory reviewed is Giblin's (1981) Equilibrium Model of Affective

Development. His theory is directly related to Piaget's stages of cognitive development. Giblin has five periods of affective development (0 - 8 months, 9 - 24 months, 2 - 6 years, 7 - 12 years and 13 years plus). He proposes that disequilibrium occurs within an individual and the purpose of emotions help to regain an individual's equilibrium. He distinguishes between feelings, which are diffuse, chaotic and/or disruptive, representing a loss of equilibrium, and emotions, which the individual uses to maintain an equilibrium in neural physiological and psychological systems. The 'disequilibrium' that Giblin describes seems to fulfill the same role that assimilation and accommodation do in Piaget's theory which processes and integrates new information.

*Period one (0 - 8 months):* Disequilibrium is experienced through sensory sensations which are too intense or too sudden. Equilibrium is regained using reflexive movements.

*Period Two (9 - 24 months):* In addition to the above disequilibrium, the presence or absence of separate others now contribute to disequilibrium. Equilibrium is regained through skills acquired through interaction with the environment.

*Period Three (2 - 6 years):* Stimuli directly or indirectly experienced (ie an empathic response) may cause disequilibrium. Representational skills such as language and emotional responses help to regain emotional stability.

*Period Four (7 - 12 years):* Disequilibrium results by perception of self or other and by social comparison of one's self to another. The affective responses of the individual help to regain the equilibrium.

*Period Five (13 years +):* Internalized standards of conduct may contribute to disequilibrium. Again it is the emotions or affective responses learned that give a person stability and enduring moods that help maintain an equilibrium. This theory is logical in its presentation but limited in detail and too simplistic. The next theory provides a more complex interaction of the components of emotion.

### 1-3-2 Izard & Maletesta (1984)

Izard & Maletesta's (1984) theory of emotional development is based on an 'emotions system', which is made up of a limited set of basic, discrete emotions, that are independent of, but interrelated with physiological, behavioural and cognitive systems. An emotion is considered to be made up of three component parts - (i) neurochemical, (ii) motoric-expressive

and (iii) mental processes, with each of the ten basic emotions, (Izard, 1977) (joy, surprise, sadness, anger, disgust, contempt, fear, shame, shyness, and guilt) having unique motivational and adaptive functions. The theory is presented as 12 postulates in relation to the development of each of the three components of the system. However in the following section only those postulates which provide ideas about emotional experience and its development will be discussed.

The first three postulates deal with *neurophysiological components of emotion*, with the second postulate most relevant to the developmental changes of emotion occurring in infancy. The infant has a built in neurological programme (canalization) to channel emotions through the emotional system which is innate. This is in preparation for further development moving from the more stereotyped and reflexive aspects of emotional behaviour to more controlled and purposeful behaviour. Izard and Malatesta's theory states that this is a 'species - typical' feature and genetically guided. Their view that emotional pathways are developed from birth and influenced by the environment around them makes them both adaptive, and also maladaptive from an early age. Therefore what happens at birth has some influence on adult internal emotion.

The second set of postulates deal with the *expressive component of emotion*. The fourth one is probably the most relevant, that expressive behaviour develops in two notable ways. First, via the kinds of events and situations that elicit emotions and secondly from a shift from the reflexive movements to expressive behaviour based on socialization. At this stage a child feels more in control of his/her emotions, ie., they can decide whether they wish to express or conceal their emotion. This is possible, partly because they have developed more neurological control, and partly because they have learned the social conventions of emotional expression within their culture.

The remaining six postulates examine *emotional experience*. Postulate 7 is important in that it relates to how emotional information develops. In the normal infant the feeling state of an emotion is activated when the

neuromuscular - expressive pattern of that emotion is aroused. They follow other developmental psychologists such as Piaget and Werner in the belief that emotional development must occur through differentiation and hierarchical stages, each stage building upon the previous one, and becoming more complex. A young child is unable to conceal an emotion e.g., if a child receives a disappointing gift they are likely to say so. It is not until later that a child learns to conceal emotions. Postulates 9, 10 and 11 will be discussed together. Postulate 9 states that there is always some emotion present in consciousness, postulate 10 that the essential quality of an emotion never changes, and postulate 11 that the ability to discriminate between essential emotions is innate not requiring experience so that feelings and thoughts can occur simultaneously. Izard and Malatesta are quite definite in their view that 'awareness in consciousness is a feeling state', not a cognition and that feeling and cognition are an interactive process. That emotion or feeling require neurochemical/sensory processes not necessarily requiring cognitive representation. They support Zajonc's (1980, 1984) thesis that feelings come before cognitions and not Lazarus (1984) in the belief that cognitions occur before feelings, although they agree that emotions and cognitions can occur together. This theory is complex and important in that it looks at emotions as separate from cognitions and clearly indicates a developmental sequence for emotional learning. This is distinct from the final theory which states that cognitions are important in the sequence of emotional development but can also occur before an emotion.

### **1-3-3 Lane and Schwartz (1987)**

Lane and Schwartz's (1987) 'Cognitive - Developmental Theory of Emotional Development' proposes that

emotional awareness is a type of cognitive processing which undergoes five levels of structural transformation along a cognitive-developmental sequence derived from an integration of the theories of Piaget and Werner (p. 138).

They are concerned with the structure of emotional experience once an emotional response has been activated. They believe that research on

emotion is being split because some researchers believe emotion has a tangible reality i.e., objective measurement of physiological arousal and/or an objective measurement of behavioural expression. They believe that this kind of perspective cannot explain or objectively measure emotional experience as there is no way of knowing what a person is experiencing with any certainty. They suggest an 'observer-dependent' reality rather than a tangible reality. To illustrate their point they refer to an example of a psychometric tool e.g., the Beck Depression Inventory (BDI) (Beck et al., 1969). The BDI asks subjects to rate the intensity or frequency of that experience while the actual differentiation and meaning of the experience is not dealt with. Individuals who receive the same score on the BDI, do not have the same emotional experience, and Lane and Schwartz (1987) believe that there must be some way of measuring the integration or differentiation of that experience.

Lane and Schwartz in the development of their theory have taken concepts from Piaget (1926; cited in Flavell 1977) and Werner and Kaplan (1963). Werner & Kaplan (1963) view the symbolic processes (e.g., language) as representing the nature of the experience, and actually help in the formation of the cognitive schemata for that experience. They suggest that to describe an emotion either representationally or symbolically, is a way of coming to know it and also a way of developing a cognitive structure of it. When considering the specific nature of this developmental process, Lane & Schwartz (1987) put forward the hypothesis that the stages of development and knowledge of one's inner world could follow the stages described by Piaget for cognitive development in general. Piaget described four major periods of cognitive development - the sensorimotor, preoperational, concrete operational, and formal operational periods. A child moves towards the formal operational stage through processes of assimilation (revising what is taken into the schema), and accommodation (adjustment of the schema to what is taken in). During this process the child's cognitive schemata is becoming more co-ordinated and complex through the structural transformations. Lane and Schwartz have used these formulations in their Cognitive-Development Theory. In early infancy the capacity for assimilation is quite limited. Caregivers are

required to intervene to provide information that modifies the emotional experience and the schema for that experience. Slowly the schemata that assimilate emotional arousal develop, and become more differentiated and integrated, so that more emotional information is processed. The individual gradually develops new ways of representing experience which are more flexible and capture more of the information contained in the arousal. This process allows the individual to become more capable of regulating his or her own state without needing to rely so much on outside caretakers. However the individual gains more control of emotional expression when he/she is able to control what internal emotions he/she shares with others. Lane and Schwartz believe that the organization of the inner world will be reflected in the structure of the verbal descriptions of emotion. The greater the degree of organization the more structured and differentiated are the descriptions of emotional states. They also stress that increasing the capacity for self regulation increases the individuals capacity to adapt successfully to his/her environment.

Lane and Schwartz (1987) have developed heirarchical levels of organization that characterize this process. A description of each level of Emotional Awareness outlined in Lane and Schwartz's (1987) theory is given below.

#### **1-3-3-1 The First Level of Emotional Awareness : Sensorimotor Reflexive ( i.e., awareness of bodily sensations.)**

This level has almost no conscious experience of emotion, only except perhaps in connection with global or bodily sensations. It is concerned with involuntary motor movements, that automatically accompany emotional arousal. These consist of automatic and neuroendocrine changes as well as autonomic facial expression. Emotional information is directed outward with no awareness of others experiences which they describe as 'reflexive' behaviour.

#### **1-3-3-2 The Second Level of Emotional Awareness: Sensori-Motor Enactive ( i.e., awareness of the body in action.)**

The conscious awareness of emotion as a feeling state has still not

developed and emotion is experienced as a "bodily sensation or an action tendency" (p. 138??). Behaviour is aimed at maximizing pleasure and minimizing distress with only a minimal awareness of other individuals as having separate emotional states.

### **1-3-3-3 The Third Level of Emotional Awareness: Preoperational (i.e., awareness of individual feelings).**

An individual's emotional states are consciously recognized now, but only one emotion at a time e.g., 'one is happy or one is sad'. The capacity to experience more than one emotion at the same time has not yet developed.

At this stage of structural transformation, emotion has cognitive representation as opposed to bodily sensations or action tendencies. The individual is not yet in control of how much emotional information he or she conveys to others, and the experience of others' emotions is based on a single behaviour rather than multiple aspects of their behaviour.

### **1-3-3-4 The Fourth Level of Emotional Awareness: Concrete Operational (i.e., awareness of blends of feelings).**

The individual is aware of, and describes complex and differentiated emotional states. Emotional reactions are now more complex in that they are composed of blends of emotions that are often opposed to one another. The individual's experience of others is unidimensional compared to an individual's multidimensional awareness of his/her experience.

### **1-3-3-5 The Fifth Level of Emotional Awareness: Formal Operational. (i.e., awareness of blends of blends of feelings).**

The structural transformation of an individual's cognitive schemata is concerned with even more differentiation and integration of one's own emotional experience, and of others. The capacity to mix or blend feelings is well developed. An individual can empathize with another and also have the capacity to observe him/her self through the eyes of others. Future experiences can be predicted so that they can be planned when making decisions and 'self-other differentiation' is also well developed.

Lane and Schwartz have concerned themselves mainly with the structure



(5 levels) of a person's emotional experience. Their conceptualization that cognitions are a symbolic representation of the emotional state has enabled them to devise an emotions questionnaire. The Levels of Emotional Awareness Scale (LEAS) was constructed from their five levels of emotional awareness described above. How well an individual can differentiate between emotions is measured using an individual's verbal or written description of his/her emotional response to a situation. These in turn give a score indicating the individual's emotional development. If an individual can describe his or her emotion in a more complex and differentiated way then he/she is functioning at level 5, but if they produce a bland unidimensional description, they are functioning emotionally at about level 3.

### 1-3-4 Summary

The three theories are very similar in orientation, all following the stages outlined in Piaget's theory of cognitive development. Giblin's five periods of emotional development appear to relate in time and number to the sequential nature of Lane and Schwartz's five levels of emotional awareness. Izard and Malatesta's 12 postulates also relate to Lane and Schwartz's five levels but not so directly. Perhaps the most noticeable differences between these two theories is that Izard and Malatesta concentrate on the factors which influence emotional expression such as the social conventions of a culture in modifying expressive behaviour and the physiological and neurological pathways that allow for emotional learning. In contrast Lane and Schwartz seem to concentrate more on the actual procession through the five main stages or levels and what developments occur at each stage. The other major difference is on the need for cognitions in emotional expression and understanding. Lane and Schwartz definitely believe that cognitive representation can occur before an emotion and is a way of describing the emotional experience. Lane and Schwartz's cognitive-developmental model alters the perspective of emotion in the psychological domain from the quantity and intensity of emotion to a more complex focus on the organizational structure of emotional experience. These structural features include whether emotion is primarily a somatic state or a psychological state as well as how

differentiated or developed the emotional schemata of the person is. The theory provides improved methods for the assessment of conscious emotional experience. The representation of the experience and the experience itself are said to arise from the same schemata, therefore the structure of the representation should reflect the structure of the experience. Lane and Schwartz have developed the LEAS in order to measure the very aspect of an emotional experience that other psychometric instruments have not been able to do. How the same situation differs in emotional experience between two people. Therefore Lane and Schwartz's theory, has at present an application for research purposes over and above the other two theories.

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## **1-4 EMPIRICAL RESEARCH ON MALE PRISONERS**

There has been almost no directly related research that is specific to the current study - which is an exploratory study within the area of emotional development and its relationship to criminal behaviour, specifically violent, non violent and sexual crimes. Therefore the studies reviewed will often be related to one aspect of the current study.

### **1-4-1 Early Research**

The early research on violent, non violent and sexual offenders has been concerned in the main, with psychopaths and non psychopaths and their relationship to psychological variables such as overcontrolled hostility (Megargee & Mendelsohn, 1962) intelligence, and empathy (Heilbrun, 1979, 1982). The variables they use have some bearing on the understanding of emotional development in the criminal population. Although the early studies investigate emotion by observing behaviour while the current study aims to investigate the internal emotional state using the method devised by Lane and Schwartz (1987) to examine the structure of the emotional response. The early research will be reviewed in three sections; i) psychopathy and overcontrolled hostility ii) psychopathy and intelligence and empathy, and iii) psychopathy and emotional reactions to attack, frustration, anxiety and anger.

#### **1-4-1-1 Psychopathy and Overcontrolled Hostility**

The most relevant to the current study is a study by Megargee and Mendelsohn (1962) who examined overcontrolled hostility. Overcontrolled hostility was considered to be an important personality variable in the explanation of violent crimes of a specific type. Megargee & Mendelsohn (1962) found that extremely assaultive criminals scored lower than non violent criminals and normals on scales of hostility and lack of control. Megargee (1966) after a review of the literature suggested that a large proportion of those who have committed crimes of extreme violence had no previous history of assaultive behaviour and were well controlled in their behaviour generally. To account for this Megargee (1966) divided assaultive offenders into two distinct groups, those who were undercontrolled and those who were overcontrolled. The undercontrolled

type were said to have low inhibitions against aggression, responding to frustration or provocation with aggressive behaviour. The overcontrolled type did not typically respond with aggression, because of strong generalized inhibitions. Only when the need to aggress had built up through temporal summation over a relatively long period did, the overcontrolled type resort to violence (Megargee 1966). Megargee argues that when the overcontrolled type does aggress, he is more likely to exhibit an extreme violence (i.e., of homicidal proportions) than the undercontrolled type, since the instigation to aggress is at a higher level. Blackburn (1968) supports Megargee and Mendelsohn's (1962) findings, and found a positive relationship between the degree of control and the severity of assault rather than a negative one, as is usually assumed.

Blackburn studied 63 male admissions to Broadmoor Hospital from 1962-1967. The subjects were taken from a pool of 98 patients, whose offences involved physical violence and divided them into extreme assaultives (EA) and moderate assaultives (MA). He found that the extreme assaultives were more likely to be overcontrolled and view themselves as moral in character with no awareness of any feelings of hostility towards himself or others. The extreme assaultive is unlikely to have a history of criminal behaviour and know the victim personally. The moderate assaultives on the other hand characteristically use aggressive responses to deal with frustration or provocation. The main concern with the above literature is that the generalizations are too broad, and not all offenders fit into the two categories. Megargee (1982) indicates this in a revision of his earlier theory. Megargee updated his theory of aggression labelling it the 'Algebra of Aggression'. He believes there is clinical evidence for at least four other types of violent people including normal individuals who have experienced strong provocation (often in conjunction with intoxication), b) offenders with organic or functional psychopathology, c) people with high instigation stemming from chronic frustration or oppression and d) instrumentally motivated offenders who use violence to achieve personal, political or religious goals (Megargee, 1982).

He gave the example that aggression is not always a response to anger or hostility. In the study of professional 'hit men' assassins, bank robbers, and

arsonists other motives like greed or power were found to lead to aggressive behaviour. Megargee's variables in his 'Algebra of Aggression' were derived from the study of criminal violence and consist of four broad factors: 1) instigation to aggression, 2) habit strength, 3) inhibitions against aggression and 4) situational factors. The assaultiveness of the overcontrolled person highlights the importance of inhibitions as well as instigation. Violence on the part of those committed to a violent lifestyle (as is true of many undercontrolled offenders) demonstrates the habitual nature of aggression. However, situational factors must also contribute to aggressive behaviour (Megargee 1982). His revised theory of aggression has attempted to account for the offender's motivations and seems to have been successful. This raises the question of whether an offender's level of emotional development is another factor which could affect an offender's motivation to aggress. For example, why do offenders respond to their environment in such different ways? Is there any difference in the structure of the emotional response to a situation in undercontrolled or overcontrolled offenders?

#### **1-4-1-2 Psychopathy, Intelligence and Empathy**

Heilburn, Jr. (1979, 1982) studied violent crime in psychopathic prisoners and put forward two models to account for his findings. His definition of Psychopathy is based on the American Psychiatric Association's (1968-DSM-II) description of it as a Personality Disorder - A condition in which socialization has been unsuccessful and in which the individual is deficient in personal loyalty, guilt, frustration tolerance and with a selfish, callous, impulsive and irresponsible life-style. Heilbrun states that above attributes should increase the risk of violent behaviour, but so far research has not been able to prove an association between violence and the psychopathic personality. Early studies of criminals using the Minnesota Multiphasic Personality Inventory (MMPI) (Hathaway & McKinley, 1951) found little difference between violent and nonviolent offenders (Levy et al., 1952). Heilbrun, Jr. (1979) made an important link when he found that intelligence was an important variable when assessing psychopathy and violent behaviour. Psychopathy was measured by the Pd scale of the MMPI (Hathaway & McKinnley 1951) and the Socialization scale of the

California Psychological Inventory (CPI) (Gough 1957). Other studies have found that the Pd scale from the MMPI is not reliable in diagnosing psychopathy (e.g., Blackburn, 1969). Heilbrun found that the combination of an unsocialized personality and lower intelligence was found to be associated with violent and impulsive crime. Heilbrun (1982) proposed a more complex conceptualization of personality, in an attempt to refine the prediction of violent criminal behaviour: (a) he considered psychopathy as a traditional personality variable, (b) intelligence as a moderating cognitive variable and (c) criminal violence as the resulting behaviour. He studied 168 male prisoners and measured (i) psychopathy (ii) socialization, (iv) intelligence (v) cognitive variables; the Stroop colour word test and mirror tracking (vi) self control; impulse control and self control (vii) self reinforcement and (viii) empathy. There were eight times as many violent as nonviolent criminals among the less intelligent psychopaths. He found that more intelligent criminals displayed superior cognitive control, whereas less intelligent psychopaths showed impaired impulse control. Empathy was greater in the high intelligence group, so that cognitive control of impulses and empathy require effective processing of information, and both were found to be diminished in the less intelligent criminal. Heilbrun's first model is predictable in that when a psychopath has a low IQ, poor socialization experience and a low threshold for physical aggression, the high risk of violent crime is understandable. The second model was devised from a post hoc analysis of the empathy scores which were opposite to his prediction. In Heilbrun's (1982) study he found that the most empathic group of criminals were the intelligent psychopaths with a history of violence. Heilbrun predicted that psychopaths would have low empathy scores and impulse control but this was not so. He reinterpreted his results in terms of a 'sadistic, effective-processing' model of violence in which the psychopaths find that inflicting pain and distress upon another is arousing and reinforcing. This finding supports Wales (1988) who found that violent offenders were superior in the recognition of facial expression of emotion. However this does not necessarily mean that they are superior in the recognition of their own emotions.

### 1-4-1-3 Psychopathy and Emotional Responses to Attack, Frustration, Anxiety and Anger.

Sterling and Edelman (1983) studied anger and anxiety provoking scenarios within psychopathic and nonpsychopathic groups. Their definition of psychopathy was taken solely from the Socialization scales of the Californian Psychological Inventory (like Heilbrun, Jr. 1979). Psychopathy is a difficult term to define, let alone measure, as indicated by other research (Blackburn, 1968; Blackburn, 1975; Heilbrun, Jr. 1979; Blackburn & Lee-Evans, 1985). Four scenarios, two that describe potentially anxiety-provoking and two that describe potentially anger-provoking episodes, that happen to a central character 'Peter' were derived from a pilot study.

Subjects rated their responses on four scales asking them to rate how anxious, angry, frightened and threatened they would feel if they were the central character, 'Peter' in the scenario. They found that both groups appraised anxiety scenarios as more anxiety provoking than the anger scenarios (as expected). The psychopathic group appraised the anxiety scenarios as more anxiety provoking than did the non psychopathic group. The psychopathic group appraised both sets of scenarios as more anger provoking than did the non psychopathic group. Both groups appraised the anxiety scenarios as more fear provoking as would be expected but the psychopathic group appraised the anxiety scenarios as more fear provoking than did the nonpsychopathic group. The psychopaths rated the anger scenarios as less threatening and the anxiety scenarios as more threatening than did the non psychopaths. The results generally supported the notion that psychopaths may perceive anxiety situations as more anxiety, anger, fear and threat inducing than do non psychopaths. In contrast they are likely to perceive anger situations as less anxiety, fear, and threat inducing than nonpsychopaths, although they may perceive them as more anger inducing. It is interesting to note that Schwartz and Weinberger (1980) proposed that fear situations are naturally anxiety-provoking and that fear may actually be a specific type of anxiety ie. an anxiety about physical harm.

A similar study was carried out by Blackburn and Lee Evans (1985). They concentrated on psychopaths and distinguished between primary and secondary psychopaths and their responses to situations provoking attack

and frustration. They defined psychopathy from a 10 scale inventory, the Special Hospitals Assessment of Personality and Socialization (SHAPS) (Blackburn, 1979a). They described the primary psychopath as socially outgoing, untroubled by anxiety or depression and the secondary psychopath as socially withdrawn and emotionally disturbed. Blackburn and Lee-Evans (1985) studied primary and secondary psychopaths in two situations labelled 'attack' and 'frustration' and studied their reactions of aggression, anger and arousal. They found that psychopaths were more intense in their reactions, but differed significantly from nonpsychopaths only in their response to attack and not frustration. They suggest that psychopaths respond to interpersonal conflict in an angry or threatening way as opposed to non psychopaths who become more frustrated. Similarly, Haldeman (1973) indicated in his dissertation that criminal sexual psychopaths (CSP) expressed more anxiety in response to anxiety-provoking situations than normals.

#### **1-4-1-4 Summary of Early Research.**

Differences have been found between psychopaths and non psychopaths on measures of hostility, intelligence and empathy. Important differences were also found in anxiety and anger-provoking situations with psychopaths exhibiting less anxiety, fear and threat in angry situations but more anxiety, fear, anger and threat in anxiety - provoking situations. It does appear that anxiety-provoking situations are more difficult to deal with for the violent offenders. A possible reason for this could be that anxiety results from the appraisal of danger in the absence of effective coping responses (Beck, 1976). Therefore while the above findings are of major importance there is one drawback in that they do not distinguish clearly between the offenders and the type of crime committed (e.g., violent, non violent & sexual). The term psychopathy is difficult to standardize and measure and the research reviewed in the next section moves away from psychopathy towards other psychological variables.

#### **1-4-2 Recent Research**

The research reviewed in this section is mainly concerned with violent offenders' assaultive behaviour and sexual aggressives. The trend appears



to be moving away from psychopathy as a construct, and moving towards the investigation of variables such as personality, demographic data, past history, social skills, assertiveness, hostility, anxiety, depression and physiological differences and the interaction between them. This seems to be a move in the right direction as it incorporates the variables in the early research but relates them directly to the behaviour associated with different types of crimes. The later research has recognized that 'type of crime' is a consequence of many variables and proceeded to examine them in interaction and separately. This section will be discussed in five main subsections (i) psychological variables considered important in offending, (ii) sexual aggressives (iii) alexithymia (iv) anger in relation to aggression and hostility and (v) measurement of psychological variables.

#### **1-4-2-1 Psychological Variables Considered Important in Offending.**

Recent literature on violent and non violent offenders is still relatively scarce, although two studies have recently reviewed extreme assaultive behaviour in relation to personality variables within the offender population. The important difference between this research and the earlier studies is the focus on the collect multi variate research, so for example, hostility is interpreted within the context of other factors rather than in isolation. Lang, Holden, Langevin, Pugh, and Wu (1987) compared 29 murderers, 30 assaulters, 51 armed robbers and 25 non violent controls on 15 measures of personality, demographic variables, and past history of violence. The measures examined a range of personality dimensions and factors considered important in violent offenders, the main one being whether nonhomicidal assaulters and armed robbers shared common features with murderers. For example they used scales of hostility - the Buss Durkee Hostility Inventory (BDHI) (Buss & Durkee, 1957), anxiety - the State Trait Anxiety Inventory (STAI) (Spielberger et al., 1970), self concept - the Self-Acceptance Scale (SAS) (Berger, 1981; cited in Lang et al., 1988), extroversion and psychoticism Eysenck Personality Qyestionnaire (EPQ) (Eysenck & Eysenck, 1975), fear of negative evaluation- Fear of Negative Evaluation (FNE) (Watson & Friend, 1969), assertiveness - the Assertiveness Questionnaire (AQ) (Lewinsohn, 1978; cited in Lang et al., 1988) and peer and family relations as measured by the Index of Family

Relations (IOFR) (Hudson, 1981; cited in Lang et al., 1987). The results showed that violent offenders were less hostile with a more normal profile on state anxiety, private and public self consciousness and self acceptance than non violent offenders and controls. They found that there were no differences in social skills and family or peer relations between the groups. Their conclusions drawn from their equivocal results suggest that these psychological variables were somewhat limited in understanding violent offenders. However, the differences they found are actually consistent with the findings of Blackburn (1968) and Megargee & Mendelsohn (1962). That violent offenders generally present themselves as less hostile than nonviolent offenders. Therefore it is possible that violent offender's appear more normal on the psychological measures than expected.

A very similar study was carried out by Hillbrand, Foster and Hirt (1988) who examined all admissions (85 male patients) at a forensic hospital in the course of a one year period. They take the view that violence stems from the interaction of situational and predisposing factors. They studied psychological, psychiatric and neurological variables and social history. The best retrospective predictors of violence were (i) the psychological factor 'dysphoria' (ii) the psychological factor 'active response to threat' and (iii) the neurological factor 'temporal lobe abnormalities'. The scale they used to measure the psychological variables with was the Clinical Analysis Questionnaire (CAQ) (Cattell & Hudleby, 1965; cited in Hillbrand et al., 1988). It is a multi-choice, self report questionnaire that yields 16 normal personality traits (e.g., warmth, intelligence, impulsivity, boldness, self sufficiency) and 12 clinical factor scales (e.g., depression, paranoia, schizophrenia) and 9 second order scales (e.g., anxiety, socialization, psychoticism). Their social history questionnaire consisted of an extensive list of familial variables (e.g., sexual abuse, neglect, parents problems, marital status of parents), childhood variables (e.g., firesetting, developmental delays, convulsions, cruelty to animals, physical abuse) and adult variables (e.g., alcohol & drug abuse, head trauma, stability of relationships). Werner et al. (1983) also found depressive mood to be one of the three major factors in the prediction of violence among hospitalized patients, along with assaultiveness prior to hospitalization

and hostility. The psychological factor 'active response to threat' with the violent subjects scoring lower, suggests that they typically adopt an avoidant style in threatening situations (Hillbrand et al., 1988). They also believe that the concept of overcontrolled hostility offers a possible explanation as violent offenders may fear their hostility, and strive to inhibit this hostility in fear-arousing situations. Hillbrand et al. (1988) put forward two perspectives on violence and depression. The first was a psychodynamic view, that violence may be triggered by the breakdown of the defenses that usually channel aggression against the self. The second was a cognitive-behavioural perspective which suggests that violence may represent an active attempt to overcome the helplessness accompanying depression.

Hillbrand et al. (1988) found that psychological variables (dysphoria & active response to threat) had greater power compared to psychiatric, social historical and neurological variables in discriminating violent from nonviolent individuals. These findings appear to contradict Lang et al. (1987) who found that psychological variables did not produce significant results when examining the relationship between violent, and non violent offenders indicating the need for further research. The main difference between the two studies was the instrument used.

Sommers (1983) measured college students emotional range (number and variety of emotional responses given by the subject, on the stimulus material, which consisted of three situations) and complexity of cognitions. The measurement of subjects cognitions involved subjects descriptions of peers which were content analysed to distinguish between the complex, sophisticated descriptions and the more unsophisticated, using Peever and Secord's (1973; cited in Sommers 1983) procedure. She found that high levels of emotional responsiveness was associated with advanced cognitive organization. However Sommers is cautionary in her conclusions, believing that the conceptual link between emotionality and cognitive organization still requires further investigation. These studies indicate that cognitive processes differ between violent, and non violent offenders and even between college students. These two studies provide support for Lane and Schwartz's (1987) theory described in Part III.

### 1-4-2-2 Sexual Aggressives

Becker, Abel, Blanchard, Murphy and Coleman (1978) found that ten socially inadequate social deviates had difficulty in expressing anger appropriately which they hypothesized may lead to rape, compared to 20 socially adequate males when videotaped talking with a female confederate. These findings have been supported by Stermac & Quinsey (1986) who studied 20 rapists, 20 nonsexual offenders and 20 nonpatient volunteers from the community in relation to their social skills. The measures included role-play situations, audiotaped assessments in a heterosocial situation and questionnaires. Only self report measures of assertiveness in both general situations and specifically in heterosexual situations differentiated rapists from control groups. They concluded in their study that rapists may have deficits in assertion with females, rather than in their general social competence. The authors believe that while they found self rated and externally rated anger or annoyance failed uniquely to differentiate sexual assaulters from both comparison groups, different interpretations are possible e.g., two that Becker et al. described were (i) it may be that rapists are more angry, particularly in rejecting situations, but inhibit the expression of anger, because of a lack of assertiveness, fear or anxiety, (ii) a 'response deficit' - rapists do not express anger appropriately because they do not know how to. Hayes, Brownell, and Barlow (1983) suggested that rapists lack the behaviours necessary to adequately interact in social and sexual interactions with women. Groth (1979) also supports the view that sex offenders are withdrawn and uncomfortable around women, and therefore lack the skills to have a satisfactory heterosocial relationship. Like Stermac and Quinsey (1986) Overholser and Beck (1986) found no significant differences on six self report measures of rapists, child molesters and three control groups on measures of heterosocial skills, social anxiety, hostility, impulsivity and attitudinal variables. For example they administered the Multiple Affect Adjective Checklist (MAACL) (Zuckerman & Lubin 1965), the BDHI, FNE, Subjective Anxiety and Distress Scale (Watson & Friend 1969). However on their behavioural observation measures, rapists displayed significantly higher levels of anxiety than did the non sex offender prison group when

being videoed in a heterosocial situation with a confederate female. They also found that rapists displayed higher levels of physiological arousal in the assertive role play scenes than did other groups. Child molesters showed significantly higher scores on the 'Fear of Negative Evaluation' scale (Watson & Friend, 1969) and were observed as socially inept, unassertive and overly sensitive about their performance with women.

The evidence shows that most of the measures used such as social skills, anxiety, impulsivity and hostility did not differ between sexual aggressives and non sexual offenders: This raises many questions. Are rapists inhibited from asserting themselves or expressing anger appropriately in a way that is different from violent and non violent offenders? Is their experience of anger different from non rapists? One study that has tried to examine the motivations of sexual murderers in more detail is by Burgess, Hartman, Ressler, Douglas and McCormack (1988). Their sample consisted of 36 sexual murderers which is a very limited group, and did not include a comparison or control group. They noted that the majority (33) were white, and many were eldest sons of good intelligence. The majority of the subjects began life in two-parent families with their mothers at home and their fathers in stable employment. On the surface the families appeared to be functional, however, many parents had problems of their own, i.e. criminal, psychiatric, alcohol abuse, drug abuse or sexual. The parents of the subjects were often so absorbed in their own problems, and offered little guidance. The murderers, as young boys, were witness to deviant role patterns of criminal behaviour, such as substance abuse and poor interpersonal relationships. In many cases, the father left the home before the subject was 12 and the subjects usually did quite poorly at school. Burgess et al. A series of checklist symptoms and behavioural experiences were devised, for example during childhood self report indicators were: daydreaming (82%), masturbation (82%), isolation (71%), chronic lying (71%), enuresis (68%), rebelliousness (67%), nightmares (67%), destruction of property (58%), fire setting (56%), cruelty to children (54%) and poor body image (52%). There were similar checklists for adolescence and adulthood. The internal behaviours most consistently reported over the three developmental periods were daydreaming, masturbation and isolation.

The external behaviours most consistently reported included chronic lying, rebelliousness, stealing, cruelty to children and assault on adults. They believe fantasy plays an important role in violent behaviour. Murderers were consciously aware of the central role of fantasy in their lives and of their preference for fantasy over reality. Burgess et al. (1988) believe that the child's parents and upbringing play an important part in sexual aggressives criminal behaviour. This raises the question - does the home environment and upbringing vary between sexual violators violent offenders and non violent offenders? Ressler, Burgess, Hartman, Douglas and McCormak (1986) in a study prior to the one above found that the style of sexual assaults on victims differed between offenders who had been sexually abused and those that had not. Those who had been sexually abused in childhood tended to mutilate the body after killing in contrast to the murderers who raped and killed but did not mutilate the body. They concluded that the undisclosed and unresolved early sexual abuse may influence their sadistic behaviour, suggesting that the home environment does play an important role in the offenders type of crime.

#### **1-4-2-3 Alexithymia**

Alexithymia is literally "no words for mood" Sifenos (1972; cited in Taylor 1984) and refers to a cognitive - affective disturbance that affects the way individuals experience and express their emotions.

The concept of alexithymia evolved primarily from research with patients suffering from psychosomatic illnesses who had difficulty in describing their emotional states (Taylor, 1985). It has since broadened and been applied to many patients with somatization disorders and other medical conditions. The main features of alexithymia are a difficulty in identifying and describing feelings (ii) a difficulty in distinguishing between feelings and bodily sensations, (iii) restricted imaginative processes, as evidenced by a paucity of fantasies and (iv) a cognitive style that is concrete and reality based (Bagby, Taylor, & Atkinson, 1988).

However the main features, focus around the limited emotional awareness and cognitive processing of an individual. This aspect of alexithymia has many implications for the current study . There is little evidence of its

application in this area so far although it is describing a critical element in Lane and Schwartz's (1987) cognitive-developmental theory - that of, restricted expression of an emotional state. Therefore there ought to be a relationship between emotional development and alexithymia. A study by Keltikangas-Jarvinen (1982) studied 'fantasy aggression' in violent offenders, one aspect of alexithymia. They based their hypothesis on the theory that alexithymic individuals have an inability to fantasize (Marty & de M'Uzan, 1963; cited in Lesser, 1981). They wanted to see whether the absence of aggressive fantasies in violent offenders was because the need had been satisfied, or because of a defect in their capability to fantasize. They used the Rorschach and the Thematic Apperception Test (Bellack 1947) and found that violent subjects expressed less aggression hostility in the projective tests than non violent subjects and that this disability was not due to low intelligence, but was found to be a specific defect. McKie (1971) carried out a similar study using the TAT levels of anger, fear, overt aggression and models of coping in murderers and non murderers and non violent offenders. He found that murderers repressed a lot of hostile and fearful affect as well as aggressive behaviour. He interpreted his findings within a psychodynamic formulation, suggesting that the repression began as a survival mechanism as a child and continued into adulthood. A lot of detailed information on alexithymia has been covered in two extensive reviews by Lesser (1981) and Lesser and Lesser (1983) and will not be covered in this literature review. However another aspect of alexithymia was discussed by Krystal (1979), who described an impaired capacity for empathy. This is not surprising as alexithymic patients have difficulty recognizing their own emotions. This finding could have some bearing on previous research results in that offenders found unable to empathize (Heilbrun, 1979, 1982) may also be functioning at a low level of emotional development and have alexithymic features.

### **Measurement of Alexithymia**

While alexithymia is a relatively new concept with good heuristic value there has been a lot of research attempting to produce an adequate measure of it. The characteristics of alexithymia have been described with remarkable consistency by clinicians and researchers but there are still problems in the construction of reliable and valid measures of alexithymia.

The most commonly used methods for quantifying alexithymia are the interviewer-rated Beth Israel Hospital Psychosomatic Questionnaire (BIQ) (Apfel & Sifrenos, 1979). The self assessment Schalling-Sifreos Personality Scale (SSPS) (Apfel & Sifreos, 1979) and the MMPI alexithymia scale (Kleiger & Kinsman, 1980). However several investigators have shown that the psychometric quality of these instruments is generally inadequate (Lolas et al., 1980; Apfel & Sifreos, 1979; Gardos, Schniebolk, Mirin, Wolk, & Rosenthal, 1984). Bagby, Taylor and Atkinson (1988) failed to obtain adequate interrater reliability with the BIQ, the SSPS produced erratic results and they demonstrated that the MMPI alexithymia lacks construct validity. Moreover the MMPI - A and SSPS appear to have little or no relationship to each other and to the interviewer rated BIQ (Paulson, 1985; Krystal et al., 1986).

More recently Demers-Derosiers, Cohen, Catchlove and Ramsay (1983) have developed a valid projective measure, the Scored Archetypal Test with 9 elements (SAT9), for quantifying the symbolizing function of the ego which is impaired in alexithymic individuals. The Rorschach Projective Test has also been used to document elements of alexithymia in clinical samples (Leavitt & Garron, 1982; Acklin & Alexander, 1988).

The advantages of self report scales over projective measures and observer-rated questionnaires, are the ease with which they can be administered and scored. More recently Taylor et al. (1985) developed a new self-report measure of alexithymia the Toronto Alexithymia Scale (TAS). In a comparative analysis with the SSPS the TAS displayed the highest internal reliability and the strongest correlation with measures of functional somatic symptoms (Taylor et al., 1985). Bagby et al. (1986) also assessed the construct validity of the TAS by examining its relationship with many personality and psychopathology measures of hypochondriasis. The TAS was found to be assessing the factor structure adequately. While the TAS seems to be the most psychometrically sound self report measure and theoretically relevant measure of alexithymia it was developed with samples of university students who may not experience the same psychopathology and personality characteristics as a clinical population.



However the TAS was considered to be the best instrument overall to measure alexithymia.

#### 1-4-2-4 Anger

Much of the literature reviewed in this section has examined hostility and the different ways it is processed in violent offenders non violent offenders and sexual violaters e.g., Megargee (1966). However a fair proportion of this research has not supported a relationship between hostility and type of crime (Hillbrand et al.,1988). A lot of literature on anger, hostility and aggression is ambiguous in the way it defines these terms. Spielberger, Jacobs, Russell and Crane (1983; cited in Chesney & Rosenman, 1985) put forward the following definitions of these constructs. *Anger* - is generally considered to be a simpler concept than hostility or aggression. The concept of anger usually refers to an emotional state that consists of feelings that vary in intensity, from mild irritation or annoyance to fury and rage.

*Hostility* - usually involves angry feelings although this concept has the connotation of a complex set of attitudes that motivate aggressive behaviours directed towards destroying objects or injuring people.

*Aggression*- generally implies destruction or punitive behaviour directed towards other persons or objects. Spielberger, Johnson, Russell, Crane, Jacobs and Worden (1985) have studied anger hostility and aggression in relation to hypertension and coronary heart disease. They have found that the effects of anger-provoking situations increase physiological measures of autonomic arousal such as pulse and blood pressure. They suggest that anger and its behavioural manifestations have been neglected in the literature. There are scales measuring hostility e.g., The Buss - Durkee Hostility Inventory (BDHI) (Buss & Durkee, 1957); The Brief Anger - Aggression Questionnaire (BAAQ) (Maurio, Vitaliano, & Cahn, 1987), but very few scales measuring anger directly. Two anger scales are for example the one by Evans and Stangeland (1971; cited in Spielberger et al., 1985) who devised the Reaction Inventory (RI) which examines the intensity of anger in a number of situations. The second by Zelin, Alder and Meyerson (1972; cited in Spielberger et al., 1985) who devised the Anger Self Report (ASR) which assessed the experience and expression of anger. However Spielberger et al. (1985) found that the RI has poor concurrent validity and

the ASR needs to have its predictive and construct validity firmly established.

So Spielberger et al. (1985) devised the State Trait Anger Expression Inventory (STAXI) along similar lines to the State Trait Anxiety Inventory (STAI) (Spielberger, Gorsuch, and Lushere, 1970). They distinguished between anger as an emotional state (S - Anger), and individual differences in anger, as a personality trait (T - Anger). They make an important conceptual distinction in that aggressive behaviour does not always have to be motivated by anger. Spielberger et al. (1985) believe that anger subsumes more complex phenomena such as hostility and aggression. Therefore measuring anger may be more useful for research purposes.

#### **1-4-2-5 Measurement of Psychological Variables**

There are many self report inventories that measure aspects of personality such as the Minnesota Multiphasic Personality Inventory (MMPI Hathaway & McKinley, 1951 ) with selected specialization scales and the Millon Clinical Multiaxial Inventory (MCMI) (Millon, 1985). For a good review of many personality inventories and self report scales see Widiger and Frances (1987). The MMPI was developed to diagnose clinical syndromes such as schizophrenia, manic depression, depression, anxiety and psychopathic personalities whose characteristics are quite similar to the DSM-III antisocial personality disorder (Widiger & Francis, 1987). In Widiger & Francis's review of the MMPI, they proposed a note of caution in employing the MMPI to diagnose personality disorders, as many of the specialization scales have not been supported. The MCMI consists of 175 items and has been used to describe psychopathology in a number of clinical groups. Widiger and Francis found that the research on the MCMI's validity and the relationship to other self-report inventories was good. However the evidence for the MCMI's supposedly strong relationship with the DSM - III personality disorder categories is not so supportive (Morey, 1985; Widiger & Francis, 1985). Widiger and Francis found some similarities between the MCMI and DSM- III typologies, but also some major differences; the most noticeable in the avoidant and dependent personality disorders. Millon (1985a) in response to Widiger

and Francis (1985) outlined his research with DSM -III diagnosed antisocial patients and studies within the prison populations. He found that 17 of the 19 studies supported the convergent validity of his antisocial (aggressive) scale. Although while its relationship with the DSM-III has been found to be equivocal it has still been found to be an adequate self report scale to measure aspects of individuals personality.

#### **1-4-2-5-6 Summary of Recent Research**

This section has reviewed studies on violent offenders non violent offenders and sexual violaters from 1984-1989. The change in direction of the more recent research has been advantageous in that it tends to support the earlier research while using different methodologies, and instruments. Although a major problem when making cross study comparisons, is that the psychological variables are measured with different instruments. However, the above research has indicated that there is some discrepancy between studies as to what variables can actually distinguish between violent, non violent and sexual offenders. Lang et al. (1987) suggested that further investigation is needed, but in a different direction and proposed the examination of cognitive distortions. The review of the recent research has shown that the variables such as psychological, demographic, social and physiological do vary between groups of offenders, but not consistently. Further research is needed, but in a different direction to minimise the problems with the different instruments, and to move away from the examination of concise psychological variables, which appear to be limited in aiding the understanding offenders.

## 1-5 RATIONALE FOR CURRENT STUDY

### 1-5-1 Introduction

The current study attempted to investigate whether type of crime (violent, non violent or sexual) is related to aspects of emotional development. There is evidence that violent offenders are the most accurate in the recognition of facial expressions and sexual offenders the least accurate with non violent offenders falling midway between the two (Wales, 1988). It may be that violent, sexual and non violent offenders also vary in their perception of their own emotions and level of emotional development. The support for the above prediction is not direct, but implied in the previous literature. For example the empirical research on the criminal population, has in the main investigated different psychological variables, such as anger and hostility (Megargee & Mendelsohn, 1962), assertiveness and anxiety (Lang, Holden, Langvin, Pugh, & Wu, 1987), and depression (Hillbrand, Foster, Jr & Hurt, 1988). Implicit in these studies, is that the psychological variables will vary between offenders (e.g., violent & non violent). Later studies examined childhood problems such as isolation, enuresis, firesetting, stealing, sexual abuse and parental influences (Burgess, Hartman, Ressler, Douglas, & McCormack, 1988) to determine whether a disturbed childhood relates to the type of crime committed. The theories of emotional development also point to the importance of the early years in laying the foundations for adaptive and maladaptive emotional patterns (Averill, 1984). However no research to date has combined the study of emotional development and type of crime within a prison population. The rationale will be covered in three separate sections following the format of the introduction.

### 1-5-2 Section One

#### 1-5-2-1 Emotional Development

The more recent theories of emotional development Giblin (1981), Izard and Malatesta (1984) and Lane and Schwartz (1987) have been based on a developmental model. Of these, the latter theory stands out as being the most applicable for research and capable of measuring an 'emotional

experience' in a way that no other researcher has been able to do. Lane and Schwartz have developed a Levels of Emotional Awareness Scale (LEAS) which they use, not to measure the quantity or intensity of an emotional state, but to measure the actual meaning (structure) of the emotional experience for the individual. The LEAS is able to provide this information by scoring the individual's responses to 20 scenarios which when totalled gives the person's level of emotional development. The LEAS is used in the current study to determine subjects level of emotional development and to investigate whether there is a significant relationship between emotional development and predominant criminal behaviour (violent, non violent and sexual). While no direct comparison can be made with previous literature a prediction could be made that violent offenders have the lowest level of emotional development. Previous results have found that violent offenders have a tendency to control their emotions e.g., Megargee (1966) found that violent offenders were more controlled in their behaviour generally and in their expression of hostility. This has been supported by Blackburn (1968) and Hillbrand (1988) also concluded that violent offenders may strive to inhibit hostility in fear-arousing situations to overcome the helplessness accompanying depression. The emotional control described by the above researchers is not an adaptive coping mechanism but a maladaptive one predicted to be indicative of violent offenders functioning at a lower level of emotional maturity. It is interesting that Lang et al. (1988) supported the early research and found that violent offenders were less hostile and produced a more normal profile on state anxiety, private and public self consciousness and self acceptance than the non violent offenders and controls. However Megargee's (1982) later research must also be taken into account when he said that not all violence stems from aggression. The literature suggests that it is the violent offenders that function at a lower level of emotional development, but the literature does not indicate where sexual violators fit in. For this reason no directional hypothesis was made although type of criminal activity was predicted to vary with the subject's level of emotional development.

Following on from this, the Levels of Emotional Awareness Scale was used to examine subjects scores in relation to key psychological variables that

were predicted to be influenced by an individual's ability to adapt to his/her environment. Lane and Schwartz (1987) stated that an individual with a high level of emotional awareness would employ successful strategies to adapt to his/her environment. So psychological variables predicted to be related to maladaptive coping strategies by the individual were alcohol abuse, drug abuse, alexithymia and somatization. Sommers (1981) also found tentative results suggesting greater cognitive ability (IQ) was related to higher emotional understanding. Finally the next prediction concerning anxiety and depression was extremely tentative. It could be suggested that subjects with high LEAS scores show the most and the least anxiety and depression. The reason for this is that a person functioning at a high level of emotional development still experiences all emotions, but is supposed to process them in a more integrated way. So these subjects would obtain high anxiety and depression scores because they are able to verbalize their emotional state while experiencing it. On the other hand they may have resolved all anxious or depressed emotional states and obtain low scores on both these variables. However this is only speculation and must be interpreted in a cautionary light so in this study no directional hypotheses have been made for the psychological variables, anxiety or depression.

### **Hypotheses**

1. That the level of emotional development (as measured by the LEAS) will vary according to the type of crime (violent, non violent, sexual and control).
2. That the structure (level 1, 2, 3, 4, or 5) of the subjects emotional response (as measured by the LEAS) will vary according to the type of crime (violent, non violent, sexual and control).
3. That there will be a significant relationship between level of emotional development (as measured by the LEAS) and 6 psychological variables (anxiety, depression, alcohol abuse, drug abuse, alexithymia and somatization).
  - (a) That subjects with low LEAS scores (LEAS <50) will score higher than subjects with high LEAS scores (LEAS >49) on alcohol abuse, drug abuse, alexithymia and somatization.

(b) That there will be a relationship between high IQ scores and high LEAS scores (LEAS >49).

(c) A relationship will exist between type of crime (violent, non violent, sexual and control) and the psychological variables anxiety and depression.

### **1-5-2-2 Emotional Response to Anxiety and Anger - Provoking Scenarios**

Sterling and Edelman (1983) assessed a subjects emotional response to anxiety and anger-provoking situations. They found that psychopaths perceive anxiety-provoking situations as more anxiety anger threat and fear inducing than non-psychopaths. However they also found that psychopaths perceived anger-provoking situations as less anxiety, threat and fear inducing than nonpsychopaths although more anger inducing. This method was also used by Blackburn and LeeEvans (1985) to show that psychopaths respond to interpersonal conflict in a more angry and threatening way compared to non-psychopaths. This method enables emotional arousal of an individual to be measured for any emotion. The previous literature has indicated that it is the anxiety-provoking scenarios that produce the strong reaction in violent offenders. This is a good method for collecting data on the intensity of an emotion in relation to a specific situation. Key emotions (anxiety, anger, threat and fear) relevant to previous literature were included so that differences between violent, non violent and sexual offenders could be examined.

### **Hypothesis**

4. That the intensity of the emotional response to anxiety-provoking and anger-provoking scenarios will vary according to the type of crime (violent, non violent, sexual and control).

### **1-5-3 Section Two**

#### **1-5-3-1 Psychological Variables**

This section reviewed studies from 1984 - 1989 on violent non violent and sexual offenders in relation to the psychological variables thought to be important in criminal behaviour. Hilbrand et al. (1988) found that two of the best 'predictors' of violence were the psychological factor dysphoria, and

the psychological factor active response to threat. They also reported a relationship between alcohol and violence. Hilbrand et al. also felt that violent offenders typically adopt an avoidant style in threatening situations and believed that overcontrolled hostility was a possible explanation for this finding. In contrast Lang et al. (1987) concluded that the use of psychological variables was somewhat limited in the understanding of violent offenders. It is interesting to compare the Lang et al. and Hillbrand et al. studies because they both investigated similar personality variables but Hillbrand et al. also included a semistructured social history questionnaire on the subjects childhood and parental behaviour. As might be expected they examined the similar psychological variables with different instruments which is a major problem when making cross study comparisons which tend to make the comparisons rather tenuous. However, the results from the studies using psychological variables have been equivocal with no clear pattern emerging. Hillbrand et al's. finding that psychological variables had greater power than social variables (e.g., physical and sexual abuse & parenting behaviour) in discriminating between violent, and non violent offenders is surprising because Burgess et al. (1988) found that sexual abuse and parenting behaviour was related to offending behaviour. One variable that has appeared in both the early and more recent research is hostility (Megargee & Mendelsohn, 1962; Megargee, 1966; Blackburn, 1969; Overholser & Beck, 1986). Again the findings on overcontrolled and undercontrolled hostility appear to be equivocal. Lang et al. found that the overcontrolled hostility dimension did not distinguish between violent and non violent offenders while Megargee (1966) did. However an interesting point was raised by Spielberger et al. (1983) that hostility is quite different from anger with anger being a more simple construct. It is possible that a difference between violent and non violent offenders would be found if the construct anger, was measured instead of hostility. Another relatively new concept, alexithymia - difficulty in describing feelings, may also be a factor influencing the type of crime committed eg., assaultive individuals tend to inhibit their aggression (Blackburn, 1969) and then react with extreme aggression. It is therefore possible that violent offender's may be alexithymic. Keltkangas-Jarvinen (1982) found that violent offenders expressed less aggression. The majority



of research on alexithymia has focused on psychosomatic patients with the findings that psychosomatic patients express moods and feelings through illness rather than with words (Bagby et al., 1986; Taylor et al., 1985; Krystal, 1979). For this reason a related construct somatization was also included in the study to see if a relationship between violent and non violent offenders would be found.

Therefore, as the previous literature found inconsistent results using psychological variables, the current study attempted to investigate a few key psychological variables in relation to the subjects emotional development, which may be an important factor, in the offender's type of crime.

Lang et al. (1987) suggested the examination of cognitive distortions which is where Lane and Schwartz's (1987) theory is so valuable. Lane and Schwartz use the cognitive schema of the individual to access the emotions which may highlight differences between offenders in a way that no one else has been able to do. The current study has taken key psychological variables from past research (depression, anxiety, drug abuse, alcohol abuse, alexithymia, somatization and anger) with the aim of identifying the variables most likely to distinguish between offenders who have committed a violent, non violent or sexual crime. However it is also important to add that psychological variables alone cannot be expected to distinguish between different types of crime. Obviously the emotional state of an offender is extremely complex and cannot be described and summed up by a few key psychological variables. The other reason this type of analysis was included was to combine the data with the four groups LEAS scores which indicate the subjects current level of emotional development (as described in section 1-5-2-1). This will show if there is any interaction between psychological variables and emotional development (see hypothesis 3 in section 1-5-2-1).

## Hypotheses

### *Depression*

1. That there will be a significant relationship between predominant type of criminal activity (violent, non violent, sexual and control) and level of Depression (as measured by MCMI Scale - D).

### *Anxiety*

2. That there will be a significant relationship between predominant type of criminal activity (violent, non violent, sexual and control) and level of Anxiety (as measured by MCMI Scale - A).

### *Alcohol Abuse*

3. That there will be a significant relationship between predominant type of criminal activity (violent, non violent, sexual and control) and level of Alcohol Abuse (as measured by MCMI Scale - B).

### *Drug Abuse*

4. That there will be a significant relationship between predominant type of criminal activity (violent, non violent, sexual and control) and level of Drug Abuse (as measured by MCMI Scale - T).

### *Anger*

5. That there will be a significant relationship between predominant type of criminal activity (violent, non violent, sexual and control) and Anger that is suppressed (as measured by the STAXI Scale AX/IN).

6. That there will be a significant relationship between predominant type of criminal activity (violent, non violent, sexual and control) and Anger that is expressed (as measured by the STAXI Scale AX/OUT).

7. That there will be a significant relationship between predominant type of criminal activity (violent, non violent, sexual and control) and Anger that is Controlled (as measured by the STAXI Scale AX/CON).

8. That there will be a significant relationship between predominant type of criminal activity (violent, non violent, sexual and control) and Anger that is expressed overall (as measured by the STAXI Scale AX/EX).

### *Alexithymia*

9. That there will be a significant relationship between predominant type of criminal activity (violent, non violent, sexual and control ) and Alexithymia scores (as measured by the TAS).

### *Somatization*

10. That there will be a significant relationship between predominant type of criminal activity (violent, non violent, sexual and control) and Somatization (as measured by the MCMI Scale - H).

## **1-5-4 Section Three**

### **1-5-4-1 Autobiographical Information**

Recent studies e.g., Burgess et al. (1986, 1988) and Hillbrand et al. (1988) have investigated the childhood and parental behaviour of their violent non violent and sexual offenders and found conflicting results. They predicted that type of crime would be related to parenting behaviours. Robbins (1966) and Patterson (1989) have found that delinquent children are more likely to have parents with delinquent behaviours. These findings relate very well to the developmental model put forward by Lane and Schwartz (1987), Izard and Malatesta (1984), and Giblin (1981) in their theories of emotional development. They believe that emotional learning occurs right from birth and continues on into adulthood. It is interesting to note that Hillbrand et al. (1988) carried out quite an extensive study particularly on the social history (parental behaviour) of their subjects and found no significant difference between violent and non violent offenders. However there is literature (as described above) supporting the belief that parenting behaviours have a major influence on children. For this reason an autobiographical questionnaire was designed specifically for the current study to examine the subjects childhood and parental behaviours e.g., parents marital status, problems (criminal activity, gambling , alcohol abuse, violence and past psychiatric history) and their methods of reward and punishment. It was predicted that the relationship between offending behaviour and crime would be related and that the violent offenders and sexual violaters would experience more disturbing parental behaviour.

## CHAPTER TWO: CURRENT STUDY

### 2-1 INTRODUCTION

Previous literature on criminal behaviour has concentrated mainly on the investigation of different psychological variables, demographic data, social history and physiological factors. The results have been disappointing in that they conflict, with no obvious pattern evident. However, the current study has moved in a new direction, attempting to combine the psychological variables with the subjects levels of emotional development. The current study uses standardized tests for the psychological variables but includes the Levels of Emotional Awareness Scale (LEAS) which has no reliability or validity data as yet. It is a new scale and one that looks as if it has a lot of potential, particularly in its application for research. This is an exploratory study and the LEAS was included, to see if the current direction is worth pursuing.

### 2-2 METHOD

#### 2-2-1 Subjects

There were four groups of subjects; violent offenders, non violent offenders, sexual violaters and controls. The first three groups were serving sentences at Paparua Prison, Christchurch, New Zealand. The Prison is a medium security male prison with a catchment area covering the top half of the South Island and an approximate muster of 290. Recent overcrowding in North Island prisons has meant that some North Island offenders have been sent south to Paparua thus effectively extending its catchment and muster.

#### 2-2-2 Subject Selection

Prospective subjects were gathered, by a member of the Justice Departments Psychological Centre, for inclusion. The nature of this study required that subjects had committed one of three types of current offences according to the Police Offence Code (see section 2-2-2a for a brief description). The Senior Psychologist at the prison identified 10 violent offenders, 10 non violent offenders and 10 sexual violaters and presented the list to the

experimenter in a random order. The experimenter was blind at the time of assessment to the criminal history and offence resulting in the current incarceration of subjects. An appropriate control group of 10 was almost impossible to find, but the control group subjects were matched as far as possible with the experimental group for a) sex, b) age, c) absence of criminal record, d) socio-economic status according to occupation and e) IQ

### 2-2-2a Police Offence Code

The Police Offence Code is used by Police entering information into a computer to describe all police jobs, incidents, tasks and offences.

It consists of a logical series of numbers each uniquely identifiable. Offence codes cover all offences dealt with by the police. Each code is divided into four levels and consists of eight groups of offences: 1000, Violence; 2000, Sexual; 3000, Drugs and Antisocial Acts; 4000, Dishonesty; 5000, Property Damage; 6000, Property Abuse; 7000, Administrative Against Justice; and 8000, Traffic. The first level in the code corresponds to the "group" of crimes under which an offence is listed e.g., 4 (121) = group: "dishonesty". The second level corresponds to the "class" of offence e.g., 41 (21) = class: "burglary". The third corresponds to the "type" of offence e.g., 412 (1) = type: "burglary - other property". The fourth level describes the "specific" offence e.g., 4121 = specific: "burgles other property estimated value over \$1000 per day".

### 2-2-3 Matched Control

In order to recruit an adequate control group, the three prison groups and control group were matched for sex, age, socio-economic status and IQ. All subjects ages and occupational status were recorded in the autobiographical questionnaire (see materials) and subjects were given the Wechsler Adult Intelligence Test short form (Silverstein 1970). The age and IQ scores were analysed separately in an analysis of variance examination (see section 3-3) between the four groups. The socio-economic status of subjects was obtained from the subjects occupational status according to Elley and Irving's (1972) classification. They devised a socio-economic scale from the 1966 Census data which has 6 economic classes. Each subjects' socio-

economic class was recorded (see section 3-3-3) and regrouped according to the percentage of subjects within the socio-economic class 4, 5 and 6 compared to the subjects in socio-economic class 1, 2 and 3.

#### 2-2-4 Experimenter

The testing was carried out by the author, a 31 year old female post-graduate clinical psychology student. The experimenter was introduced to subjects by prison staff as a psychologist.

#### 2-2-5 Setting

All testing of the prison groups was conducted in one of two rooms (depending on the availability), both psychologists offices. The rooms were similar in size and both had a desk and two chairs. All testing was conducted between 8.15 am and 4.30 pm and around prison routine.

#### 2-2-6 Materials

*Levels of Emotional Awareness Scale (LEAS) (Lane & Schwartz, 1987)*

This is an unpublished 20 item self report questionnaire which measures the subjects level of emotional awareness, as outlined by Lane and Schwartz's cognitive-developmental theory of emotional development (Lane & Schwartz, 1987) (see Appendix D). There are twenty scenarios and the subject must describe how he would feel if he were the person in the scenario, and then describe how the other person would feel. There are three separate ratings which must be made for each scenario: 1) self 2) other 3) total. The ratings for "self" and "other" are made in exactly the same way: the description of emotion for each person is assigned the level score from 0 to 4 which is the highest level achieved for that item. Thus, there is one "self" score from 0 to 4 and one "other" score from 0 to 4 for each scenario. Every feeling mentioned in a scenario can potentially be rated for "self" and "other". The criteria for making these ratings are listed in the glossary provided by Lane and Schwartz. The "total" score for each item is the highest of these two ("self" & "other") scores, except in the case of two level 4 scores in which case the guidelines for level 5 should be followed. No reliability or validity data has been published by Lane and

Schwartz as yet, on this scale.

*Toronto Alexithymia Questionnaire:(TAS) (Taylor et al., 1985).*

This is a 26 item self-report questionnaire measuring the alexithymia construct (see Appendix G). The scale provides measures of four factors: ability to describe feelings, ability to describe and distinguish between feelings and bodily sensations, daydreaming and externally-orientated thinking. Each item is scored from 1-5 with half the items positively keyed and half negatively keyed with a possible score of 130. The higher the score the greater the degree of alexithymia. The 26 item scale yielded a coefficient alpha of 0.79 and one week ( 0.82 ) and five week ( 0.75 ) test-retest reliabilities (Taylor et al., 1985). Factor analysis of the scale produced a four-factor solution, congruent with the alexithymia construct. Only one content area, (dream recall) included in the original item pool had items that were not retained. The first three factors (difficulty identifying and distinguishing between feelings and bodily sensations, difficulty communicating feelings and reduced day dreaming) corresponded to the main features of alexithymia, as defined by Nemiah and Sifneos (1970; cited in Bagby et al., 1988) and the fourth factor (externally-orientated thinking corresponded to the pensee operateire initially described by Marty and de M'Uzan (1963; cited in Bagby et al., 1988).

*The State-Trait Anger Expression Inventory (STAXI) (Spielberger, 1986).*

This is a 44 item self-rating questionnaire which provides concise measures of the experience and expression of anger (see AppendixE). The STAXI was developed for two primary reasons: 1) to provide a method of assessing components of anger that could be used for detailed evaluations of normal and abnormal personality, and 2) to provide a means of measuring the contributions of various components of anger to the development of medical conditions, including hypertension, coronary heart disease, and cancer. There are six scales and two subscales.

*State Anger (S-Anger) :* A 10 item scale which measures the intensity of angry feelings at a particular time.

*Trait Anger (T-Anger) :* A 10 item scale which measures individual

differences in the disposition to experience anger. The T-Anger scale has two subscales.

*Angry Temperament ( T-Anger/T):* A 4 item subscale which measures a general propensity to experience and express anger without specific provocation.

*Angery Reaction ( T-Anger/R):* A 4 item subscale which measures individual differences in the disposition to express anger when criticized or treated unfairly by other individuals.

*Anger-In ( Ax / In ) :* An 8 item scale which measures the frequency with which angry feelings are held in or suppressed.

*Anger-Out (Ax/Out ) :* An 8 item scale which measures how often an individual expresses anger toward other people or objects in the environment.

*Anger-Control (Ax/Con):* An 8 item scale which measures the frequency with which an individual attempts to control the expression of anger.

*Anger Expression(Ax/Ex):* A research scale based on the responses to the 24 items of the Ax/In, Ax/Out, and Ax/Con scales which provides a general index of the frequency that anger is expressed, regardless of the direction of expression.

*Scoring:* The scores range from 1-4 for the responses to each item. The responses are totalled for each scale to arrive at a raw score. The STAXI Manual lists the corresponding percentiles and T scores. Scores for the Ax/Ex scale are based on the scores of the three Ax scales.

*Reliability and Validity:* Local norms for the STAXI have been developed by Knight, Hendrika, Waal-Manning and Spears (1988) from a sample of over 1000 adults tested in a general health survey of a NZ community. Knight et al. (1988) found that the reliability and validity was acceptable. The correlation between Ax/In and Ax/Out although significant for both men ( $r = 0.13, p < 0.001$ ) and women ( $r = 0.17, p < 0.001$ ), was small in magnitude. As a further check on the validity of the Anger Expression scales, the factor analytic procedures used by Spielberger et al. (1984; cited in Knight et al., 1988) were replicated. The pattern of results which emerged were similar to that of Spielberger et al. (1984). Coefficient alpha for the Ax/Out scale was 0.73, equivalent to the alpha coefficients reported by Spielberger. The alpha coefficient of 0.70 for the Ax/In scale was



somewhat lower than those reported by Spielberger et al. (1984) ( 0.84 and 0.81 for males and females respectively). Thus Knight et al. (1988) confirms that the new Anger Expression scale compliments Spielbergers trait anger inventories and asesesses style of anger expression in a plausible and unambiguous manner. They believe that the Ax/In and Ax/Out measure two relatively independent dimemsions. However they do add that further refinements of the Ax scale are necessary; in paricular the validity of the Ax/Con items need to be clearly established. The number of items on this scale with respect to anger-in and anger-out need to be clarified.

*Millon Clinical Multiaxial Inventory :( MCMI ) (Millon et al., 1985a).*

The MCMI is a 175 item true-false self report inventory (see Appendix F). A total of eleven personality disorders and nine clinical syndrome scales are measured as well as one validity scale. During the construction of the MCMI, items were selected, in part, on the basis of their representation of clinical constructs and their ability to differentiate between a criterion clinical group and all other patients, rather than between a clinical group and a normal poulation as in the Minesota Multiphasic Personality Inventory (MMPI). The MCMI is also much shorter than the MMPI. Five scales plus the validity scale were selected for the current study.

Scale A - Anxiety	37 items
Scale H - Somatoform	41 items
Scale D - Dysthymia	36 items
Scale B - Alcohol - abuse	31 items
Scale T - Drug abuse	46 items

*Wechsler Adult Intelligence Scale: (WAIS) (Wechsler, 1955).*

The WAIS (short form) (Silverstein 1970) was used to determine the IQ of each subject. Information, Vocabulary, Block Design and Picture Arrangement provided measures of Verbal, Performance and Full Scale IQ. Maxwell (1959) found that this combination of subtests correlated most highly with full scale IQ compared to other combinations of four subtests. Matarazzo (1972) found that various tetrads correlated between 0.953 and

0.942 with fill scale IQ. Silverstein (1970) also found that various tetrads correlated between 0.945 and 0.903 with full scale IQ. The Information, Vocabulary, Block Design and Picture Arrangement combination correlated 0.940 with full scale IQ.

### *Anger and Anxiety-Provoking Scenarios:*

Four emotions selected to be studied in more detail were, anxiety anger threat and fear (see Appendix H). Two anger-provoking and two anxiety-provoking scenarios were created to measure the degree of anxiety, anger, threat and fear felt by the subjects when placing themselves in the same situation as the central character "Peter" in the scenario. A pilot study was carried out prior to testing to determine which scenarios would be used (see Appendix A for the scenarios). Nine scenarios were used in a pilot study on a first year laboratory class,  $N = 30$  who were asked to 1) decide what emotion they would feel if they were the main character "Peter" in the scenario and 2) rate the intensity of the emotion from 0-4. The two scenarios that had the highest anxiety ratings and the two that had the highest anger ratings combined with the most intense rating of the emotion were included in the study (see Appendix A for the pilot study results).

*Scoring:* Subjects had to read the scenario and for each emotion (anger, anxiety, threat and fright) rate on a scale of 0-4 how intense they felt, that particular emotion. This method has been used successfully in previous studies e.g., Sterling and Edelman (1983) in their study of psychopaths and nonpsychopaths and Blackburn and Lee Evans (1985).

### *Autobiographical Questionnaire:*

This was designed for the current study to obtain a more detailed personal history from each subject regarding his parents reward and punishment behaviour, parents' problems, childhood, schooling, past psychiatric history, drug and alcohol abuse, friendships, relationships, gang affiliation and criminal history (see Appendix I).

## 2-3 PROCEDURE

### 2-3-1 Prospective subjects

Prospective subjects were summoned individually from prison wings or work places by prison officers who told them a psychologist wanted to see them. Once subjects arrived at the testing room the procedure was briefly explained to them and that it would take approximately two hours. It was stressed that their participation was optional, that any results were confidential and would not be available to prison authorities nor placed on their prison file and that their participation would count neither for nor against early release prospects. Refusals were subsequently replaced by other subjects, from the pool of subjects made available by the Senior Psychologist.

### 2-3-2 Testing of subjects

Each subject was tested individually following the selection process described above. Following agreeing to take part in the study it was further explained to each subject that "they would be required to answer six different types of questionnaires which would be explained just prior to completion". The majority of subjects lacked adequate literacy skills which were compensated for by the experimenter (ie, the experimenter read the item aloud and/or wrote the subjects answer down for him).

All questionnaires were presented to the subject in the same order.

1) The first questionnaire was the LEAS. The subject was given the LEAS and told

On top of each page are 20 situations. Describe what you would feel in your answers. You may make your answers as brief or as long as necessary to express how you would feel. In each situation there is another person mentioned. Please indicate how you think that the other person would feel as well.

The experimenter wrote the subject's answers 'word for word' as spoken. If the subject could not read, the experimenter read the 20 situations out loud.

on the STAXI item booklet.

3) TAS - was presented next in the same manner as the STAXI. The subject was told

This questionnaire is about the way you think and feel about your emotions. To answer tick one of the five responses (true, fairly true, don't know, not really true or not true) for each question.

If the subject was literate he filled in the questionnaire himself, otherwise the experimenter read the questions out loud, and the subject filled in the answer sheet.

4) The Scenarios - If the subject was not literate the scenario was read out loud by the experimenter. The subject was asked to

Rate on a scale of 0 to 4, how anxious, angry, threatened and frightened you would feel, if you were the central character Peter in the scenario.

5) MCMI - the experimenter read out loud the 175 items while the subject marked the answer sheet true or false. The subject was told

When you agree with a statement or decide that it describes you, fill in the T on your answer sheet to mark it true. If you disagree with the statement or decide that it does not describe you, fill in the F to mark it false. Try to mark every statement even if you are not sure of your choice.

6) WAIS - Each subject was tested on four subtests of the WAIS; Information, Vocabulary, Block Design and Picture Arrangement, providing measures of verbal, performance and full scale IQ.

7) Autobiographical Questionnaire - All questions were asked and recorded by the experimenter.

Subjects were given tea or coffee half way through the testing, and on some

occasions, natural breaks occurred when subjects had lunch or recreational commitments.

The LEAS questionnaire was scored blind by the experimenter, in accordance with the scoring classification set down by Lane and Schwartz.

The interrater reliability was established using a colleague from the Psychology Department, who was blind to group assignment, scoring a random sample of 5 questionnaires.

The other questionnaires were scored according to their instructions.

## CHAPTER THREE RESULTS

### 3-1 DEMOGRAPHIC DATA AND SUBJECT CHARACTERISTICS

#### 3-1-1 Demographic Data

##### Age

Thirty nine subjects finally took part in the study. They ranged in age from 20 years to 46 years with a mean age of 26 years 4 months (sd = 7 years 4 months).

##### Race

There were thirty Caucasian subjects, seven Maori, and two Polynesian subjects.

##### Refusals

Four potential subjects refused to take part in the study. Two potential subjects refused to accompany the prison officer from the wings and one subject refused after the study had been explained to him. One subject was excluded from the study because he could not understand English and as a consequence could not understand the questionnaires. No demographic data or offence histories is available for these subjects.

##### Occupational Status

This was obtained in order to match subjects socio-economic status from occupational status as another factor with which to match the prison sample and the control sample. Stable employment for the subjects was considered to be two or more years working in the one occupation prior to their prison sentence. Unstable employment was considered to be less than two years in one occupation prior to their prison sentence.

*Violent Offenders* Five were in stable employment, working as a mechanic, carpenter (3) and a tattooist. The five in unstable employment were on a sickness benefit, unemployed (2), and labouring (2).

*Non Violent Offenders* Four were in stable employment ranging from working as a watersider, security guard, tattooist and self employed owning a panel beating business. The five in unstable employment worked as a musician, shearer, labourer, freezing worker and raced motor cars.

*Sexual Violaters* Six were in stable employment and worked as a labourer (3), sailor, butcher and cabinet maker. The four in unstable employment were unemployed (2), shed hand and storeman and packer.

*Control* Six were in stable employment with jobs ranging from electrician, assistant social worker, truck driver, mechanic and supermarket worker (2). The four in unstable employment were unemployed, university student, library assistant and part time probation officer.

### 3-1-2 Subject Characteristics

#### Group 1 Violent Offenders.

Size n = 10

Age mean age = 25.1 years (sd = 5.1 years)

IQ mean verbal IQ = 87.3 (sd = 16.0)

mean performance IQ = 111.0 (sd = 17.7)

mean full scale IQ = 97.3 (sd = 16.9)

Crimes commonly committed: murder, manslaughter, aggravated robbery, assault.

\*

#### Group 2 Non Violent Offenders.

Size n = 9

Age mean age = 26.0 years (sd = 3.5 years)

IQ mean verbal IQ = 86.2 (sd = 15.9)

mean performance IQ = 89.1 (sd = 13.4)

mean fullscale IQ = 87.2 (sd = 15.1)

Crimes commonly committed: burglary, theft, taking / conversion of motor vehicle, false pretences, receiving/ possession of stolen goods.

\*

\*\*

**Group 3 Sexual Violaters.**

Size n = 10

Age mean age = 30.3 years ( sd = 8.1 years )

IQ mean verbal IQ = 93.6 ( sd = 17.5 )

mean performance IQ = 105.1 ( sd = 16.3 )

mean fullscale IQ = 98.4 ( sd = 14.9 )

Crimes committed: Sexual violation.

**Group 4 Control.**

Size n=10

Age mean age = 29.2 years ( sd = 5.3 years )

IQ mean verbal IQ = 112.6 ( sd = 13.8 )

mean performance IQ = 114.9 ( sd = 8.4 )

mean fullscale IQ = 114.5 ( sd = 9.5 )

\*

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*Key*

\* No sexual violations ( Police Offence Code 2000, Sexual )

\*\* No violent crimes ( Police Offence Code 1000, Violence )

\*\*\* No criminal history .

**3-1-3 Matched Control**

In order to match the control group with the three prison groups, four factors were used; age, sex, socio - economic status and IQ.

A one-way analysis of variance examination was carried out on age and IQ scores between groups (violent, non violent, sexual and control) to test for any significant differences.

**Age**

No significant difference was found between the prison sample (violent offenders, non violent offenders and sexual violaters) and the control group  $F (3, 35) = 1.548, p > .05$  (see table 3-4 for means).



## IQ

**Verbal IQ** A significant difference was found between the three prison groups and the control group  $F(3, 35) = 5.808, p < .01$  (see table 3-4 for means). The control group had a significantly higher mean Verbal IQ score than the violent offenders, non violent offenders and sexual violaters. There were no significant differences between the 3 prison groups on verbal IQ scores.

Table 3-1 Anova summary: Verbal IQ.

Source	Sum of Squares	df	Mean Square	F - test	p
Between groups	4386.988	3	1462.329	5.808	0.0025
Within groups	8812.756	35	251.793		
Total	13199.744	38			

**Performance IQ** A significant difference was found between the non violent offenders and the other three groups (violent offenders, sexual violaters and controls)  $F(3, 35) = 5.765, p < .01$  (see table 3-4 for means). The non violent offenders had a significantly lower mean Performance IQ score than the violent offenders, sexual violaters and controls.

Table 3-2 Anova summary: Performance IQ.

Source	Sum of Squares	df	Mean Square	F - test	p
Between groups	3604.901	3	1201.634	5.765	0.0026
Within groups	7294.689	35	208.42		
Total	10899.59	38			

**Full Scale IQ** A significant difference was found between the three prison groups (violent offenders, non violent offenders and sexual violaters) and controls  $F(3, 35) = 5.932, p < .01$  (see table 3-4 for means). The control group had a significantly higher mean Full Scale IQ score than the violent offenders, non violent offenders or sexual violaters.

Table 3-3 Anova summary: Full Scale IQ.

Source	Sum of Squares	df	Mean Square	F - test	p
Between groups	3666.111	3	1222.037	5.932	0.0022
Within groups	7210.55	35	206.016		
Total	10876.667	38			

Table 3-4 Summary of Means for Age and IQ scores between Groups.

	Group 1	Group 2	Group 3	Group 4
Age				
Mean	25.1	26	30.3	29.2
Std.dev.	5.1	3.5	8.1	5.3
Verbal IQ				
Mean	87.4	86.2	93.6	112.6
Std.dev.	16	15.9	17.5	13.8
Performance IQ				
Mean	111	89.1	105.1	114.9
Std.dev.	17.7	13.4	16.3	8.4
FullScale IQ				
Mean	97.3	87.2	98.4	114.5
Std.dev.	16.8	15.1	14.9	9.5

Legend  
Group 1 = Violent Offenders  
Group 2 = Non Violent Offenders  
Group 3 = Sexual Violaters  
Group 4 = Controls

Socio-Economic Classes for the Four Groups.

The following table shows the four groups of offenders and the break down of their socio-economic class status.

Table 3-5 Offenders Socio-Economic Class.

	Socio-economic class						No employment
	1	2	3	4	5	6	
Group 1	0	0	0	5	0	2	3
Group 2	0	2	1	1	2	2	1
Group 3	0	0	0	2	2	6	0
Group4	0	0	4	3	1	1	1

*Legend*  
Group 1 = Violent Offenders  
Group 2 = Non Violent Offenders  
Group 3 = Sexual Violaters  
Group 4 = Controls

Summary

There was no significant difference between the four groups on age or sex. However there was a significant difference between the three prison groups and the control group on Full scale IQ and Verbal IQ but not on Performance IQ. Violent offenders and sexual violaters had 100% of their subjects in the socio-economic classes, 4, 5 and 6 whereas non violent offenders and control group had 60% of their subjects in the socio-economic class 4, 5 and 6. The above results suggests that the control group is significantly different from the three prison groups only on IQ scores. It is important to note that the three prison groups did not differ significantly, on measures of age, sex, full scale IQ and socio-economic class and they were often analysed separately without the control group. Therefore while there is an obvious difference in the IQ scores, the control group was still considered to be important, particularly in section three of the results which examines the social history of the subjects. The results have been interpreted cautiously when the control group was included, bearing in mind the difference in IQ.

3-2 Section One

*Hypothesis 1. That the level of emotional development will vary according to the type of crime (violent, non violent, sexual and control) .*

The four groups (violent offenders, non violent offenders, sexual violaters and controls) Levels of Emotional Awareness Scale (LEAS) scores, were subjected to a one-way analysis of variance to test whether their level of emotional development varied between groups. All analysis of variance tests, and group comparisons were examined using the Stat-View programme on the MacIntosh.

3-2-1 Between Group

Group means for each subjects LEAS scores are presented in table 3-6. The analysis of variance conducted on subjects LEAS scores produced a significant between group effect  $F(3, 35) = 6.88, p < .001$ , (see table 3-7).

Table 3-6 Summary of Group Means for LEAS Scores.

Group		Mean	Std Dev
Violent Offenders	10	50.3	11.31
Non Violent Offender	9	47.78	5.91
Sexual Violaters	10	58.3	8.01
Control	10	62.7	6.2

The between group comparisons indicated that violent offenders had significantly lower LEAS scores compared to sexual violaters (Fisher PLSD 7.456,  $p < .05$ ), and controls (Fisher PLSD 7.456,  $p < .05$ ). Non violent offenders had significantly lower LEAS scores compared to sexual violaters (Fisher PLSD 7.66,  $p < .05$ ), and from controls (Fisher PLSD 7.66,  $p < .05$ ). There was no significant difference between sexual violaters and controls LEAS scores.

Table 3-7 Anova summary: Level of Emotional Development between the Groups.

Source	Sum of Squares	df	Mean Square	F test	p
Between Groups	1392.042	3	464.014	6.882	0.0009
Within Groups	2359.042	35	67.424		
Total	3751.897	38			

*Hypothesis 2. That the structure of the subjects emotional response (as measured by the LEAS) will vary according to the type of crime (violent, non violent, sexual and control) .*

Structural analysis of all subjects Levels of Emotional Awareness Scale (LEAS) scores indicated that there were differences between the groups responses. For each scenario the subjects three separate ratings (self, other and total scores) were analysed. Examination in detail of each subjects scores for each scenario provided information about how many level 0, 1, 2, 3, 4, or 5 responses each subject made throughout the twenty scenaros of the LEAS (see table 3-8).

Table 3-8 Percentage of Each Subjects Level 0, 1, 2, 3, 4, & 5 Responses.

Levels of Emotional Awareness						
	0	1	2	3	4	5
Group 1	6	8	24	47	10	5 =100
Group 2	7	5	22.5	60.5	4	1 =100
Group 3	6.5	3	18	55	13	4.5 =100
Group 4	3	3	6.5	59.5	22.5	5.5 =100

Legend

0, 1, 2, 3, 4, and 5 are the levels of emotional awareness taken from Lane & Scwhartz's (1987) Cognitive - Developmental Theory of Emotional Development.

- Group 1 = Violent Offenders
- Group 2 = Non Violent Offenders
- Group 3 = Sexual Violaters
- Group 4 = Controls

This table shows for example that 13% of the sexual violaters responses reached level 4 of Lane & Scwhartz's (1987) Level of Emotional Development. In order to distinguish between high levels of emotional

awareness levels 4 and 5, and the lower levels of emotional awareness levels 0, 1, 2, and 3 the subjects level's 0 - 3 scores were collapsed (by adding the percentages together) and the subjects levels 4 and 5 scores were collapsed together.

**3-2-2 Assocoation between Levels 0-3 and Levels 4-5.** A Chi - Square analysis examined the association between subjects collapsed levels 0 - 3 responses, and their collapsed 4- 5 repsonses between groups, and found a significant association between group (violent, non violent, sexual and control) and LEAS scores, (see table 3-9)  $\chi^2 (15) = 19.2, p < .001$  .

Table 3-9 Collapsed Percentages of LEAS scores.

	Levels 0, 1, 2, + 3	Levels 4 + 5.
Group 1	85	15
Group 2	95	5
Group 3	82.5	17.5
Group 4	72	28

*Legend*

- Group 1 = Violent Offenders
- Group 2 = Non Violent Offenders
- Group 3 = Sexual Violaters
- Group 4 = Controls

*Hypothesis 3. That there will be a significant relationship between emotional development (as measured by the LEAS) and 7 psychological variables ( IQ, TAS, Somatization, Alcohol Abuse, Drug Abuse, Anxiety and Depression).*

The 7 psychological variables and LEAS scores were analysed with a one - way analysis of variance. Specifically it was predicted that subjects with low LEAS scores (LEAS < 50) will score higher than subjects with high LEAS scores (LEAS >49), on alcohol abuse (MCMI scale - B), drug abuse (MCMI scale - T), somatization (MCMI scale - H) and alexithymia (TAS) because these represent less successful ways of adapting to the environment. It was predicted that there would be a significant relationship between subjects with high LEAS scores and subjects with high IQ scores. No directional hypotheses were made for the variables

anxiety and depression as the previous literature is too conflicting. The group means for the 7 psychological variables are presented in table 3-10.

Table 3-10 Summary of Means for 7 psychological variables

LEAS and 7 Psychological Variables Mean Scores.

Group	LEAS >49		LEAS<50	
	Mean	std. dev.	Mean	std. dev.
Full Scale IQ	103.7	16.8	89.5	12.8
Anxiety	54.6	29.5	72.4	29.5
Depression	52.4	25.7	64.4	27.7
Alcohol Ab.	51.8	29.1	75.5	13.3
Drug Ab.	67.4	27.5	88.3	20.5
Alexithymia	65.8	16.1	68.4	13.7
Somatization	49.5	21.3	64.9	19.5

3-2-3 Relationships between 7 Psychological variables and LEAS scores.

The results of the one - way analysis of variance tests found that there was a significant relationship between subjects with low LEAS score and subjects with high scores on alcohol abuse, drug abuse and somatization but not alexithymia.

Alcohol Abuse  $F(3, 37) = 6.732, p < .05$

Table 3-11 Anova summary: LEAS scores and Alcohol Abuse

Source	Sum of Squares	df	Mean Square	F - test	p
Between groups	4471.715	3	4471.715	6.732	0.0135
Within groups	24577.977	37	664.27		
Total	29049.692	38			

Drug Abuse  $F(3, 37) = 5.158, p < .05$

Table 3-12 Anova summary: LEAS scores and Drug Abuse

Source	Sum of Squares	df	Mean Square	F - test	p
Between groups	3431.269	3	3431.269	5.158	0.0291
Within groups	24615.039	37	665.271		
Total	28046.308	38			

Somatization  $F(3, 37) = 4.31, p < .05$

Table 3-13 Anova summary: LEAS scores and Somatization

Source	Sum of Squares	df	Mean Square	F - test	p
Between groups	1875.168	3	1875.168	4.31	0.0449
Within groups	16095.909	37	435.025		
Total	17971.077	38			

Alexithymia  $F(3, 37) = .225, p > .05$

A relationship between LEAS and the psychological variables anxiety and depression was predicted, but no direction was given. No relationship was found between the variables, anxiety and depression and LEAS scores.

Anxiety  $F(3, 37) = 2.867, p > .05$

Depression  $F(3, 37) = 1.655, p > .05$

The one way analysis of variance performed on IQ and LEAS scores indicated that subjects with high LEAS scores were significantly higher on their Full Scale IQ and Verbal IQ, but not Performance IQ.

Full Scale IQ  $F(3, 37) = 6.371, p < .05$

Table 3-14 Anova summary: LEAS scores and Full Scale IQ.

Source	Sum of Squares	df	Mean Square	F - test	p
Between groups	1597.838	3	1597.832	6.37	0.016
Within groups	9278.834	37	250.779	0.016	
Total	10876.667	38			



Verbal IQ  $F(3, 37) = 8.121, p < .05$

Table 3-15 Anova summary: LEAS scores and Verbal IQ.

Source	Sum of Squares	df	Mean Square	F - test	p
Between groups	2375.705	3	2375.705	8.121	0.0071
Within groups	10824.039	37	292.542		
Total	13199.744	38			

Performance IQ  $F(3, 37) = 1.897, p > .05$ .

**Removal of control group data.**

When the control group data was removed and an analysis of variance examination was carried out on the LEAS and Full scale IQ scores, no relationship was found, conflicting with the results above  $F(1, 27), = 1.87, p > .05$ .

*Hypothesis 4. That intensity of emotional responses to anxiety-provoking and anger-provoking scenarios will vary according to the type of crime (violent, non violent, sexual and control) .*

Intensity of emotional responses to anxiety-provoking and anger-provoking scenarios were examined by eight one-way analysis of variance tests. For each question ( how anxious do you feel? how angry do you feel? how threatened do you feel? and how frightened do you feel?) the within-subject variable was type of scenario (average rating for the two anxiety scenarios or the average rating for the two anxiety scenarios), and the between subject variable was group (violent, non violent, sexual and control). One subject within the control group did not fill in his responses to the Anxiety and Anger-provoking scenarios, so the number of subjects was reduced by one for this section of the analysis.

**3-2-4 Anxious Responses.**

*Anxious Responses to Anxiety-Provoking Scenarios.*

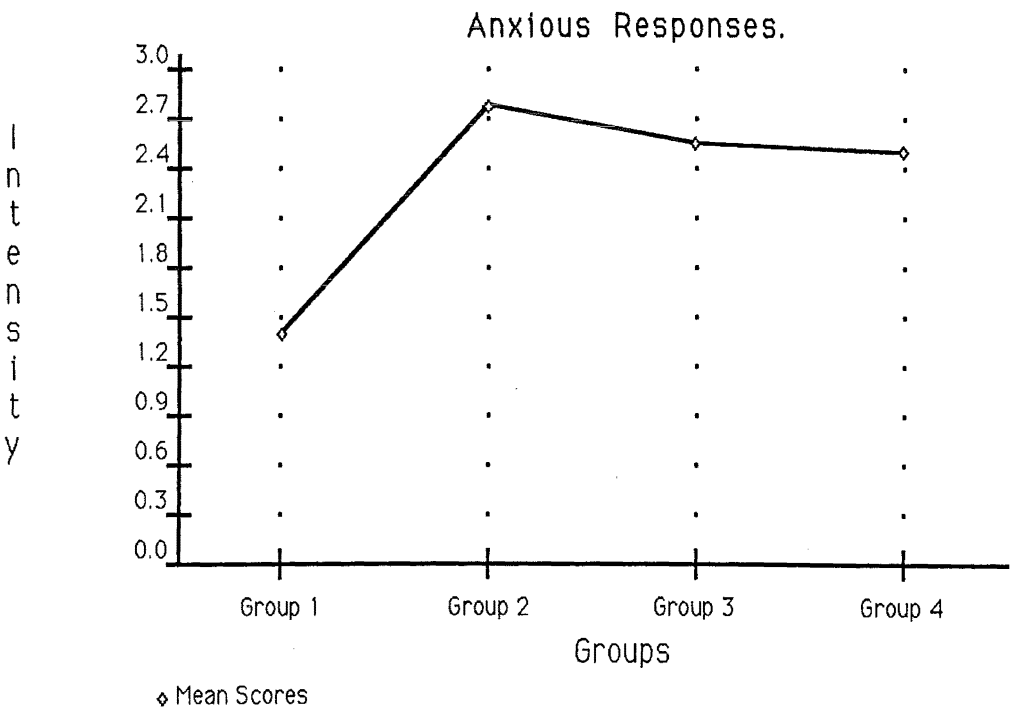
*Between Groups:* The violent offenders were significantly less anxious

than the non violent offenders, sexual violaters and controls  $p < .05$  ( see table 3-16 for anova summary, and table 3-17 for means)  $F (3, 35) = 3.605, p < .05$  (see figure 1 for the graph of means, of anxious responses to anxiety provoking scenarios).

Table 3-16 Anova summary: Anxiety-Provoking Scenarios (Anxious Responses).

Source	Sum of Squares	df	Mean Square	F - test	p
Between groups	11.178	3	3.726	3.605	0.0228
Within groups	36.181	37	1.034		
Total	47.359	38			

Figure 1. Anxious Responses to Anxiety Provoking Scenarios



Legend  
Group 1 = Violent Offenders  
Group 2 = Non Violent Offenders  
Group 3 = Sexual Violaters  
Group 4 = Controls

*Anxious Responses to Anger-Provoking Scenarios*

*Between Groups:* There was no significant difference between the groups.  
 $F(3, 34) = 1.05, p > .05$  (see table 3-17 for means).

Table 3-17 Mean Scores of Anxious Responses to Anxiety and Anger-  
Provoking Scenarios.

	Anxiety	Anger
Group 1		
Mean	1.4	1.65
sd	0.937	1.081
Group 2		
Mean	2.778	2.167
sd	0.833	1.225
Group 3		
Mean	2.55	1.85
sd	1.343	1.156
Group 4		
Mean	2.5	1.278
sd	0.85	0.87
Total mean	2.316	1.737

*Legend*  
Group 1 = Violent Offenders  
Group 2 = Non Violent Offenders  
Group 3 = Sexual Violaters  
Group 4 = Controls

*Between Scenarios:* There was a significant difference between responses to the two scenarios when scores were collapsed across groups, with a more intense, anxious response to anxiety provoking scenarios (mean = 2.316, sd = .63) than to anger-provoking scenarios (mean = 1.737, sd = .37),  $F(1, 3) = 5.179, p < .05$  (see table 3-18 for anova summary).

Table 3-18 Anova summary: Anxious Responses to Both Scenarios.

Source	Sum of Square	df	Mean Square	F test	p
Group	9.329	3	3.11	3.122	0.03
Subjects w. Group	33.868	34	0.996		
Repeat. Measure (B)	6.368	1	6.368	5.179	0.0293
AB	6.075	3	2.025	1.647	0.1969
B x subjects w.groups	41.807	34	1.23		

*Group By Scenario:* There was no significant interaction between groups and scenarios  $F(3, 34) = 1.647, p > .05$ .

**3-2-5 Angry Responses**

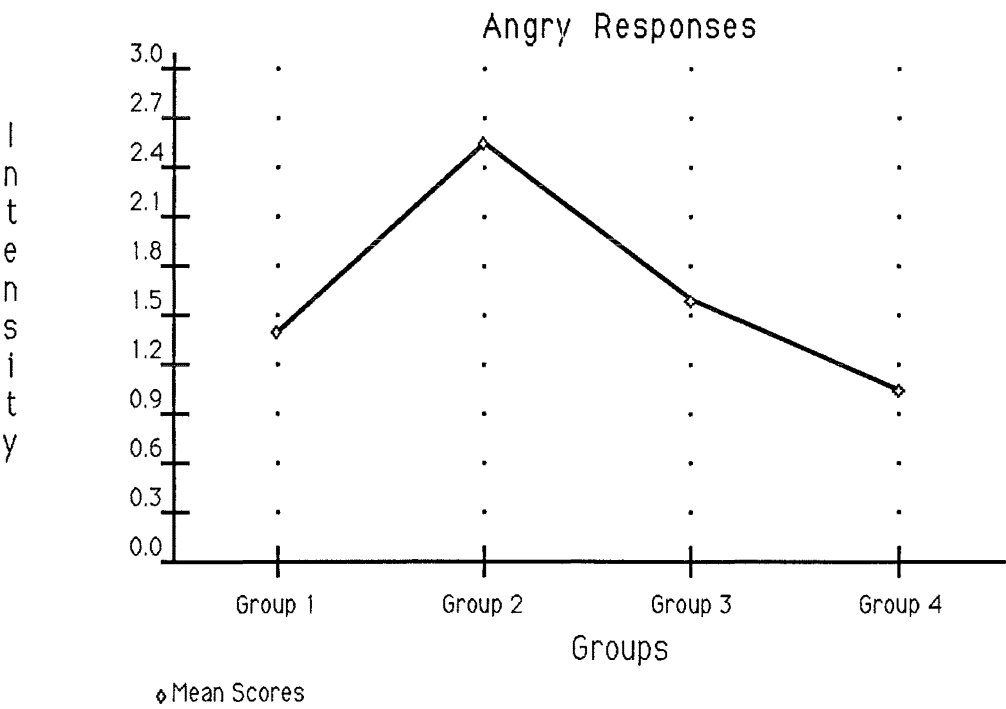
*Angry Responses to Anxiety-Provoking Scenarios.*

*Between Groups:* The non violent offenders were significantly more angry than the violent offenders and controls  $p < .05$ , but were not significantly different from the sexual violaters (see table 3-19 for anova summary, and table 3-20 for means),  $F(3, 35) = 3.062, p < .05$ , (see figure 2 for the graph of means, of angry responses to anxiety-provoking scenarios).

Table 3-19 Anova summary: Anxiety-Provoking Scenarios (Angry Responses).

Source	Sum of Squares	df	Mean Square	F - test	p
Between groups	11.61	3	3.871	3.062	0.0408
Within groups	44.247	35	1.264		
Total	55.859	38			

Figure 2. Angry Responses to Anxiety-Provoking Scenarios



*Legend*  
Group 1 = Violent Offenders  
Group 2 = Non Violent Offenders  
Group 3 = Sexual Violaters  
Group 4 = Controls

Angry Responses to Anger-Provoking Scenarios.

Between Groups: There was no significant difference between the groups.  $F(3, 34) = 1.709, p > .05$  (see table 3-20 for means).

Table 3- 20 Mean Scores of Angry Responses to Anxiety and Anger- Provoking Scenarios.

	Anxiety	Anger
Group 1		
Mean	1.4	2.3
sd	1.15	0.856
Group 2		
Mean	2.556	2.722
sd	1.074	0.755
Group 3		
Mean	1.6	2.95
sd	1.37	0.725
Group 4		
Mean	1.05	2.222
sd	0.832	0.939
Total mean	1.592	2.553

Legend  
Group 1 = Violent Offenders  
Group 2 = Non Violent Offenders  
Group 3 = Sexual Violaters  
Group 4 = Controls

Between Scenarios: There was a significant difference between responses to the two scenarios when scores were collapsed across, groups with a more intense angry response to anger-provoking scenarios (mean=2.55, sd = .35) than to anxiety provoking scenarios (mean = 1.59, sd .716)  $F(1, 3) = 21.747, p < .0001$  (see table 3-21 for anova summary).

Table 3-21 Anova summary: Angry Responses to Both Scenarios.

Source	Sum of Squares	df	Mean Square	F-test	p
Group(A)	12.926	3	4.309	4.121	0.0135
Subjects w. Groups	35.551	34	1.046		
Repeated Measure(B)	17.53	1	17.53	21.747	0.0001
AB	4.438	3	1.479	1.835	0.1593
BxSubjects w. Groups	27.407	34	0.80		

Group by Scenario: There was no significant interaction between groups and scenarios  $F(1, 3) = 21.747, p > .01$ .

3-2-6 Threatening Responses.

*Threatened Responses to Anxiety-Provoking Scenarios.*

*Between Groups:* There was no significant difference between the groups in their threatened responses to anxiety-provoking scenarios  $F(3, 35) = 2.642, p > .05$  (see table 3-22 for means).

*Threatened Responses to Anger-Provoking Scenarios.*

*Between Groups:* There was no significant difference between the groups in their threatened responses to anger-provoking scenarios  $F(3, 34) = 1.211, p > .05$  (see table 3-22 for means).

Table 3-22 Mean Scores of Threatened Responses to Anxiety and Anger-  
Provoking Scenarios.

	Anxiety	Anger
Group 1		
Mean	1.25	1
sd	1.275	0.913
Group 2		
Mean	2.667	1.833
sd	1.118	0.559
Group 3		
Mean	2.3	1.35
sd	1.418	1.375
Group 4		
Mean	2	1.389
sd	0.624	0.697
Total mean	2.053	1.382

*Legend*

- Group 1 = Violent Offenders
- Group 2 = Non Violent Offenders
- Group 3 = Sexual Violaters
- Group 4 = Controls

*Between Scenarios:* There was a significant difference between responses to the two scenarios when scores were collapsed across groups, with a more intense, threatened response to anxiety-provoking scenarios (mean = 2.05, sd = .6) than anger-provoking scenarios (mean = 1.3, sd = .34).  $F(1, 3) = 9.803, p < .01$  (see table 3-23 for Anova summary).

Table 3-23 Anova summary: Threatening Responses to Both Scenarios.

Source	Sum of Squares	df	Mean Square	F-test	p
Group(A)	12.358	3	4.119	2.968	0.0456
Subjects w. Groups	47.186	34	1.388		
Repeated Measure(B)	8.556	1	8.556	9.803	0.0036
AB	1.394	3	0.465	0.532	0.6631
BxSubjects w. Groups	29.675	34	0.873		

*Group by Scenario:* There was no significant interaction between groups and scenarios  $F(3, 34) = .532, p > .05$ .

3-2-7 Frightened Responses

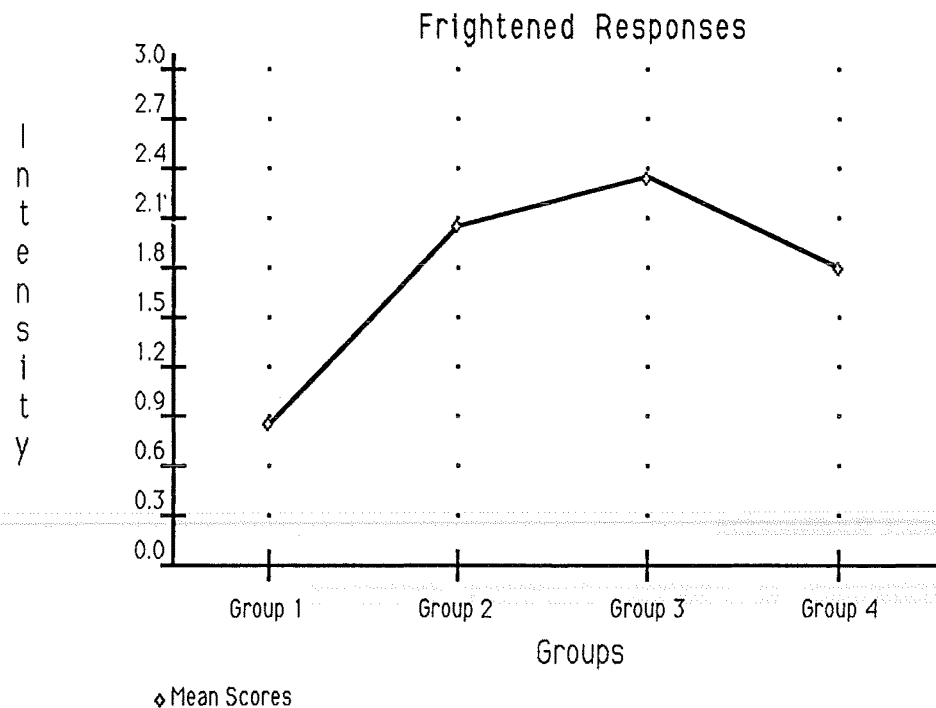
*Frightened Responses to Anxiety-Provoking Scenarios.*

*Between Groups:* The violent offenders were significantly less frightened than the non violent offenders and the sexual violaters but not significantly different from the controls  $F(3, 35) = 3.195, p < .05$  (see table 3-24 for anova summary, and table 3-25 for means), and figure 3 for a graph of the means of frightened responses to anxiety-provoking scenarios.

Table 3-24 Anova summary: Anxiety-Provoking Scenarios (Frightened Responses).

Source	Sum of Squares	df	Mean Square	F - test	p
Between groups	12.564	3	4.188	3.195	0.353
Within groups	45.872	35	1.311		
Total	58.436	38			

Figure 3. Frightened Responses to Anxiety-Provoking Scenarios.



*Legend*

- Group 1 = Violent Offenders
- Group 2 = Non Violent Offenders
- Group 3 = Sexual Violaters
- Group 4 = Controls

*Frightened Responses to Anger-Provoking Scenarios.*

*Between Groups:* There was no significant difference between the groups,  $F (3, 34) = 1.304, p > .05$  (see table 3-25 for means).



Table 3-25 Mean Scores of Frightened Responses to Anxiety and Anger-Provoking Scenarios.

	Anxiety	Anger
Group 1		
Mean	0.85	0.25
sd	1.18	0.54
Group 2		
Mean	2.056	0.556
sd	1.21	0.768
Group 3		
Mean	2.35	1
sd	1.226	1.354
Group 4		
Mean	1.8	0.5
sd	0.949	0.433
Total mean	1.776	.579

*Legend*

Group 1 = Violent Offenders

Group 2 = Non Violent Offenders

Group 3 = Sexual Violaters

Group 4 = Controls

*Between Scenarios:* There was a significant difference between responses to the two scenarios when scores were collapsed across groups, with a more intense frightened response to anxiety-provoking scenarios (mean = 1.776, sd = .65), than anger-provoking scenarios (mean = .58, sd = .312),  $F(1, 3) = 33.488$ ,  $p < .0001$  (see table 2-26 for anova summary).

Table 3-26 Anova Summary: Frightened Responses to Both Scenarios.

Source	Sum of Squares	df	Mean Square	F-test	p
Group(A)	13.126	3	4.375	3.471	0.0266
Subjects w. Groups	42.851	34	1.26		
Repeated Measure(B)	27.24	1	27.24	33.488	0.0001
AB	2.478	3	0.826	1.015	0.3979
BxSubjects w. Groups	27.657	34	0.813		

*Groups by Scenario:* There was no significant interaction between groups and scenarios  $F(3, 34) = 1.015$   $p > .05$ .

3-3 SECTION TWO

3-3-1 Psychological Variables

A series of one-way analysis of variance tests analysed the data for each psychological variable. The independent variable was group (violent, non violent, sexual violaters and controls) and the dependent psychological variable was (depression, anxiety, alcohol abuse, drug abuse, anger, alexithymia or somatization).

*Depression*

*That there will be a significant relationship between predominant type of criminal activity (violent, non violent, sexual and control) and level of depression.*

No significant difference was found between the four groups (violent offenders, non violent offenders, sexual violaters and controls) in their level of depression  $F(3, 35) = 1.963, p > .05$  (see table 3-31 for means).

*Anxiety*

*That there will be a significant relationship between predominant type of criminal activity (violent, non violent, sexual and control) and level of anxiety.*

A significant difference was found between groups  $F(3, 35) = 4.651, p < .001$  (see table 3-27). All three prison groups (violent offenders non violent offenders and sexual violaters) were significantly different from the control group. However there was no significant difference between the three prison groups (see table 3-31 for means).

Table 3-27 Anova Summary: Anxiety and Type of Criminal Activity.

Source	Sum of Squares	df	Mean Square	F - test	p
Between groups	9829.319	3	3276.44	4.65	0.0077
Within groups	24657.656	35	704.504		
Total	34486.974	38			

*Alcohol Abuse*

*That there will be a significant relationship between predominant type of criminal activity (violent, non violent, sexual and control) and level of Alcohol Abuse.*

There was a significant difference between the groups  $F(3, 35) = 11.874, p < .0001$  (see table 3-28). All three prison groups (violent offenders, non violent offenders and sexual violaters) were significantly different from the control group. However there was no significant difference between the three prison groups (see table 3-31 for means).

Table 3-28 Anova Summary: Alcohol Abuse and Type of Criminal Activity

Source	Sum of Squares	df	Mean Square	F - test	p
Between Groups	114652.97	3	4884.32	11.874	0.0001
Within Groups	14396.722	35	411.335		
Total	29049.692	38			

*Drug Abuse*

*That there will be a significant relationship between predominant type of criminal activity (violent, non violent, sexual and control) and level of drug abuse.*

A significant difference between the groups was found  $F(3, 35) = 8.827, p < .001$  (see table 3-29). All three prison groups (violent offenders, non violent offenders and sexual violaters) showed significantly more drug abuse than the controls. However there was no significant difference between the three prison groups, (see table 3-31 for means).

Table 3-29 Anova Summary: Drug Abuse and Type of Criminal Activity.

Source	Sum of Squares	df	Mean Square	F - test	p
Between Groups	12080.285	3	4026.762	8.827	0.0002
Within Groups	15966.022	35	456.172		
Total	8046.308	38			

### *Anger*

*That there will be a significant relationship between predominant type of criminal activity (violent, non violent, sexual and control) and the AX/IN STAXI scale.*

There was no significant difference between the groups (violent offenders, non violent offenders, sexual violaters and controls)  $F(3, 35) = .743, p > .05$  (see table 3-31 for means).

*That there will be a significant relationship between predominant type of criminal activity (violent, non violent, sexual and control) and the AX/OUT scale.*

There was a significant difference between the groups (violent offenders, non violent offenders, sexual violaters and controls)  $F(3, 35) = 2.845, p < .05$ . The violent offenders were significantly different in their AX/OUT score from the control group, although not significantly different from the non violent offenders or sexual violaters (see table 3-31 for means).

*That there will be a significant relationship between predominant type of criminal activity (violent, non violent, sexual and control) and the AX/CON scale.*

There was no significant difference between the groups (violent offenders, non violent offenders, sexual violaters and controls)  $F(3, 35) = 2.431, p > .05$  (see table 3-31 for means).

*That there will be a significant relationship between predominant type of criminal activity (violent, non violent, sexual and control) and the AX/EX scale.*

There was no significant difference between the groups (violent offenders, non violent offenders, sexual violaters and controls)  $F(3, 35) = 1.883, p > .05$  (see table 3-31 for means).

*Alexithymia*

*That there wil be a significant relationship between predominant type of criminal activity (violent, non violent, sexual and control) and TAS scores.*

There was no significant difference between the groups and TAS scores  $F(3, 35) = 2.06, p > .05$  (see table 3-31 for means).

*Somatization*

*That there will be a significant relationship between predominant type of criminal activity (violent, non violent, sexual and control) and degree of somatization.*

There was a significant difference between the groups  $F(3, 35) = 3.933, p < .05$  (see table 3-30). All three prison groups (violent, non violent and sexual violaters), differed significantly from the controls. However there was no significant difference between the three prison groups (see table 3-31 for means).

Table 3-30 Anova Summary: Somatization and Type of Criminal Activity.

Source	Sum of Squares	df	Mean Square	F-test	p
Between Groups	4530.577	3	1510.192	3.933	0.0161
Within Groups	13440.5	35	384.014		
Total	17971.07	38			

Table 3-31 Means of Psychological Variables.

	Group 1		Group2		Group 3		Group 4	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Depression	53.3	22.5	62.4	28.0	66.8	34.4	41.1	12.
Anxiety	61.1	25.7	72.8	28.5	72.2	30.3	33.8	20.9
Alcohol Ab.	64.5	23.3	79.4	12.2	65.0	23.4	27.0	19.3
Drug Ab.	86.1	23.7	88.6	17.0	75.6	19.6	44.5	23.9
AX/IN	58.4	6.7	60.9	8.8	54.7	10.0	57.1	10.8
AX/OUT	61.8	8.9	58.7	7.4	55.5	10.1	50.6	9.0
AX/CON	35.2	10.3	34.6	7.4	38.5	10.7	46.6	14.5
AX/EX	69.1	8.9	68.2	6.7	64.1	10.6	158.6	15.4
TAS	67.6	18.8	69.7	16.4	72.1	12.9	59.6	12.6
MCMI-H	56.0	10.8	66.3	20.3	57.6	27.5	36.7	16.1

Legend

- Group 1 Violent Offenders
- Group 2 Non Violent Offenders
- Group 3 Sexual Violaters
- Group 4 Controls

The MCMI (Millon 1985) measured depression, anxiety, alcohol abuse, drug abuse and somatization (MCMI-H). The anger scales AX/IN, AX/OUT, AX/CON. AX/EX were measured by the STAXI Spielberger (1985). Alexithymia was measured by TAS (Bagby et al., 1986).

3-4 SECTION THREE

3-4-1 Autobiographical Data

The autobioligical questionnaire was given to subjects to elicit key information regarding their childhood and upbringing. No statistical analysis was carried out on the data (see Appendix C for data). The aim of the questionnaire was to examine the subjects perceptions of their childhood. All subjects were asked to recall from their own experience what they could remember. Most of the subjects responded to this questionnaire well, although some expressed difficulty in recalling their experience accurately.

### *Are your parents still together?*

There were no obvious differences between groups (violent, non violent, sexual violaters and control) and their experience of family life in terms of parental divorce rates.

**Violent offenders** 6 subjects had parents still married and 4 divorced.

**Non violent offenders** 5 subjects had parents still married and 4 divorced.

**Sexual violaters** 5 subjects had parents still married and 5 divorced.

**Controls** 6 subjects had parents still married and 4 divorced.

### *Were your parents happy together?*

Whether parents were happy in their marriage did not differ markedly between the groups.

### *How did your parents punish you?*

The experience of punishment did vary between groups. It was most noticeable in the type of punishment given. Violent offenders and sexual violaters tended to have parents who used a more physical type of punishment (such as smacking, hitting or beating) if they used any at all. The parents of violent offenders, including 3 mothers and 8 fathers, used little or no punishment, and 2 subjects recalled no punishment from either their mother or father. Whereas parents of non violent offenders used a wider range of punishment and no subject recalled missing out on punishment altogether. If the subject's mother did not punish (and two did not) then the father would, and if the father did not punish the subject (two did not) then the mother would. The same pattern occurred for the parents of the sexual violaters (4 mothers and 2 fathers did not use punishment. However, within the control group both parents used a variety of measures in order to punish the subjects. The application of physical force was most severe in the parents of violent offenders and sexual violaters. Two fathers of violent offenders applied excessive physical force eg., using the kettle cord to beat the children, whereas 8 of the sexual violaters' fathers used excessive physical force eg., one would rape and beat the wife in front of the children, prod them with red hot poker and beat them. One father shot his daughter in the eye blinding her for life in that eye. There was a marked contrast in type of punishment between the parents of the violent

offenders and sexual violaters and the parents of the controls and non violent offenders. The latter used a variety of punishments graded in severity from a verbal warning and 'telling off', removal of privileges, being sent to their room or given a hiding. But no subjects in the non violent offenders or control groups complained of the beatings that the subjects in the other two groups did.

*How did your parents reward you?*

There was very little difference between the groups in the amount of reward experienced.

**Violent Offenders.**

7 mothers were experienced as being rewarding at times.

3 fathers were experienced as being rewarding at times.

**Non violent Offenders.**

7 mothers were experienced as being rewarding at times.

7 fathers were experienced as being rewarding at times.

**Sexual Violaters.**

6 mothers were experienced as being rewarding at times.

6 fathers were experienced as being rewarding at times.

**Controls.**

8 mothers were experienced as being rewarding at times.

5 fathers were experienced as being rewarding at times.

However the type of reward did vary between the groups. The parents of the violent offenders gave food, praise and material things but only 1 mother gave any kind of physical affection like a hug (which was experienced as rewarding).

Two fathers and one mother of the sexual violaters were experienced as giving physical affection. Within the non violent offenders four subjects said their parents gave some form of physical affection occasionally.

Within the control group the main type of reward was praise and general encouragement. Not one subject mentioned any physical affection. So overall the pattern of reward appears to be that the three prison groups recieved minimal physical affection and mainly material things such as food, money and occasionally allowed to help their parents or be taken on



outings. The control group mentioned mostly praise and general encouragement as well as occasionally material things such as food and money.

*Did your parents have problems of their own?*

There seemed to be little variation between the groups in the subjects' experiences of their parents' problems. All groups stated that between 3 - 5 mothers suffered from depression and had problems with alcohol. However the three prison groups experienced between 4 - 6 of their fathers having problems with alcohol and/or gambling and angry outbursts, while the control group only mentioned 1 father as having a problem with alcohol.

*How did your parents react when you were ; excited / happy ; distressed / angry; depressed?*

There was also little difference between the groups' experiences of parents' reactions to subjects' mood changes.

## CHAPTER FOUR: DISCUSSION

### 4-1-1 Emotional Development

From the above results a number of conclusions can be made about the prisoner's emotional development. The results support the first hypothesis that the emotional development of prisoners does vary between violent offenders, non-violent offenders and sexual violaters. Sexual violaters were found to be functioning at a higher level of emotional development than either the violent or the non violent offenders measured by the 'Levels of Emotional Awareness Scale' (Lane & Schwatz, 1987). Violent offenders and nonviolent offenders were not significantly different from each other in terms of their emotional development. The control group were also functioning at a significantly higher level of emotional development than the violent and nonviolent offenders but were not significantly different from the sexual violaters. It was not surprising to find that violent offenders were functioning at a lower level of emotional development. This is consistent with the early research of Heilbrun, Jr. (1979, 1982) who studied violent crime in psychopaths and found two main types of violent offenders: a) violent offenders who were less intelligent, had less impulse control, less empathy and less cognitive control, and b) extremely empathic and intelligent criminals with a history of violence. Megargee & Mendelsohn (1962) also found that assaultive criminals could be divided into two groups, the overcontrolled and the undercontrolled. So for both Heilbrun Jr. and Megargee & Mendelsohn, the violent offender's emotional control could be said to be poorly regulated. This ties in with Lane & Schwartz (1987) who place much emphasis on a person's cognitive schemata where the control of emotion originates. They believe that a person's cognitive schemata gradually assimilates emotional experience and arousal which becomes more differentiated and integrated, so that more emotional information is processed internally. In this way a person becomes more capable of regulating his/her own emotional state. Non violent offenders were also functioning at a lower level of emotional development which again, could be explained in terms of Megargee and Mendelsohn's undercontrolled behaviour. By responding in an uncontrolled way to

situations their responses are also poorly regulated. These results suggest that sexual violaters are better able to organize and assimilate emotional information than are violent and non violent offenders and that they are more aware of their own emotional state. This does not mean that they cannot experience and express a wide variety of emotional states.

However, this finding is also supported by the results in that sexual violaters gave significantly more LEAS responses at level 3, 4 and 5 than the non violent offenders. This indicates that sexual violaters, like controls, are at a higher level of emotional development. Of the four groups the controls reached the highest level of emotional development, then the sexual violaters, violent offenders and lastly the non violent offenders. The cognitive schemata of an individual is important, and the ability to process and regulate emotional experience seemed to be a major factor in emotional development. The above finding is in contrast to Wales (1988) who found that violent offenders were more perceptive of facial expressions in others than non violent offenders and sexual violaters were last. Yet the current study found sexual violaters to be the best of the three prison groups in perceiving their own emotional state. The two contrasting findings do not necessarily have to be exclusive of each other. The finding that violent offenders are better at judging emotion in others, does not necessarily mean that they are better at judging their own emotion.

#### **4-1-2 Emotional Development and 7 Psychological Variables**

Extending Lane & Schwartz's theory further, in the light of the results of this study, it could be argued that since subjects with high LEAS scores (sexual violaters and controls), are more aware of, and have a greater capacity for regulation of their emotional experiences, they will be able to tolerate a more conscious awareness of the experience of different emotional states than the violent offenders and non violent offenders. The reason for this is that in order to assimilate and develop their cognitive schemata they must have a capacity to contain more pleasant or unpleasant emotional arousal and then process and assimilate it. If this is true then they will be more aware of their emotional state and score more highly on depression or anxiety if they are feeling depressed or anxious, or

lower on scores of anxiety and depression if they are not. Subjects with high LEAS scores would also have lower scores on scales of drug abuse, alcohol abuse, somatization and alexithymia because they will be dealing with their emotional state in an adaptive way rather than in a maladaptive way, as for example with heavy drinking or drug taking. Theoretically subjects with high LEAS scores don't need to use drugs or alcohol to inhibit their emotional arousal, and tend to somatize less than subjects with low LEAS scores who have not been able to adapt successfully and develop cognitive schemata to assimilate their emotional arousal. When the subjects' LEAS scores were analysed with the psychological variables, subjects with high LEAS scores were significantly lower on the scales of alcohol abuse, drug abuse and somatization than subjects with low LEAS scores. These results show tentative support for Lane & Schwartz's theory that the ability of a person's cognitive schemata to assimilate and regulate emotional arousal affects a person's emotional experience of an event and this in turn influences how a person responds to the event. However a confounding variable may be that the subjects with high LEAS scores (n = 28) include the control group who were found to be scoring significantly lower on the measurement of alcohol abuse, drug abuse and somatization than the three prison groups. Therefore this result could be due to the psychological variables relationship with the LEAS, or it could be a response to other factors (not measured in the current study) which make the subject less susceptible to alcohol or drug abuse. Further examination of different samples is needed to clarify this.

#### **4-1-3 Emotional Development and IQ**

The Full Scale IQ and Verbal IQ were significantly higher in subjects with high LEAS scores compared to subjects with low LEAS scores. However Performance IQ was not significantly different between the groups. This result tends to suggest that subjects functioning at a higher level of emotional development have a higher verbal intelligence. Lane & Schwartz (1987) state in their theory that emotional development does not develop at the same rate as intellectual development and therefore not necessarily related. The results of the current study found that intellectual functioning is related to emotional development. Although, when the

control group was taken out and the LEAS and IQ scores of the three prison groups were analysed separately, there was no significant relationship between them, which suggests that within a similar population matched for IQ,, emotional development and IQ are not related, thus supporting Lane and Schwartz's (1987) theory. This is an interesting finding and one that would be useful to repeat on another intellectually brighter sample. It would appear that emotional development while not following exactly the same stages or or rate of development is at least related to the emotional functioning of an individual. x

#### **4-1-4 Anxiety and Anger-provoking Scenarios.**

The more detailed examination of four specific emotions, anxiety anger, threat and fear in relation to a prisoner's own experience of them, turned out to be significant only for anxiety-provoking scenarios: The emotional responses to anxiety-provoking scenarios did vary between groups as hypothesized. The violent offenders appraised the anxiety-provoking scenarios as less anxiety, anger, and fear inducing compared to the non violent offenders and less anxiety, threat and fear inducing than the sexual violaters. There was no significant interaction between the groups and their threatened responses to anxiety-provoking scenarios. This provides tentative support for the above findings that sexual violaters are able to experience and express their anxiety better than violent and non violent offenders. The non violent offenders experienced the most anxiety, threat and fear in response to the anxiety-provoking scenarios but seemed to be less able to integrate the experience, compared to sexual violaters when interpreted in relation to their LEAS scores, because they are functioning at a lower level of emotional development. This result does not support Sterling and Edelman's (1983) findings with psychopaths. They found that the psychopaths actually experienced more anxiety than the non psychopaths. This result is consistent with the earlier research by Megargee and Mendelsohn (1962) and Blackburn (1968) who found that violent offenders did not differ from normals on scales of hostility and lack of control. In this study violent offenders have not differed from controls in their responses to anxiety or anger-provoking scenarios. Do

they genuinely feel less anxious or is it symptomatic of their less effective adaptation to the environment and poorer capacity to assimilate emotional arousal? It is also interesting to note that the anger-provoking scenarios did not produce any significant differences between the groups. One consideration must be that these results are very much determined by the original scenarios and may not have been sensitive enough to distinguish between the four groups. Another is that angry responses may be more uniform generally. Although Sterling and Edelman (1983) found that psychopaths appraised the anger-provoking scenarios as less anxiety, threat and fear-provoking but more anger-provoking than non-psychopaths. However their study is not directly comparable because the sample population was different, involving psychopaths and non-psychopaths rather than violent offenders, non violent offenders, sexual violaters and controls in the current study.

#### **4-2-5 Psychological Variables and Relationship to Predominant Criminal Activity**

Examination of the seven psychological variables (depression, anxiety, alcohol abuse, drug abuse, anger, alexithymia and somatization) and their relationship to crime did not produce any particularly startling results. There was no significant difference found between the three prison groups. However there was a significant difference between the control group, and the three prison groups on anxiety, alcohol abuse, drug abuse, anger (AX/OUT Scale) and somatization. The latter must be interpreted cautiously and cannot be generalised to a larger population as there are many variables which may have influenced this result, not least of which is the significant difference in IQ between the control group and the three prison groups. The Millon (MCMI) may not have been sensitive enough to detect subtle changes in the prison population, although it was designed specifically for this population. Lastly, there may have been little variation between the three prison groups on their psychological profile when measured by standardized instruments. These results are consistent with Lang et al. (1987) who found no difference between murderers, assaulters, armed robbers and non violent controls on psychological variables. Many studies have found a relationship between violence and

depression although the current study found that depression did not differ significantly between the groups which does not support Hillbrand et al's. (1988) results that 'dysphoria' is a good predictor of violent behaviour. The current study found that sexual violaters had the highest depression score which was significantly different from the control group in the individual comparisons. The results of this study tend to support Lang et al. (1987) in that the psychological variables used in isolation do not appear to be particularly helpful in distinguishing between violent, non violent offenders and sexual violaters except for the psychological variable anxiety. - Anxiety did significantly differ between the groups. The sexual violaters and non violent offenders were more anxous compared to violent offenders and controls.

The current study also found that 'anger' as measured by the STAXI (Spielberger, 1986) was not useful in distinguishing between the three prison groups. Only violent offenders were significantly different from the control group who directed more anger outwards (as measured by the AX/OUT scale). Anger has been studied extensively in both early and later research and yet it remains an elusive construct. Megargee and Mendelsohn (1962) studied hostility and proposed that the offenders fell into two groups; the overcontrolled and the undercontrolled, but revised this theory in 1982, admitting that the expression of hostility was more complex than their original formulation. They devised an "Algebra of Agression" which incorporated four broad factors to account for offenders' hostility. Lang et al. (1987) also found no differences between violent and non violent offenders on the measure of hostility. Becker (1978) proposed that rapists had difficulty in the expression of anger but they also found that sexual assaulters did not differ significantly from the comparison groups. As with Becker, Stermac and Quinsey (1986) found that rapists did not differ on measures of anger. Similarly Overholser & Beck (1986) found no significant differences on measures of hostility and anger between rapists, child molesters, and three control groups. The above studies indicate that while anger and hostility are considered to be an important psychological dimension, no one has really been able to successfully measure it. Some of the reasons given for these results are

that:

- a) Anger and hostility are situation specific, e.g., they only occur in rejecting situations because of a lack of assertiveness, fear or anxiety (Becker, 1978).
- b) Anger results from a response deficit as offenders do not know how to express anger appropriately (Hayes, Brownell, & Barlow, 1983).
- c) Anger results from a social skills deficit e.g., social anxiety in heterosocial situations (Curran, 1979).
- d) Higher levels of anxiety and fear of negative evaluations (Overholser & Beck, 1986).

The above arguments suggest that the expression of anger is not a single unitary concept, and overlaps with other variables. Spielberger's (1986) State Trait Anger Expression Questionnaire does not seem to be sensitive enough to distinguish between the groups of offenders. One reason why the assessment of anger continues to plague researchers could be that the wrong construct is being measured, for example Lane & Schwartz (1987) have devised a questionnaire which measures the structure of a subject's emotional response. They gave the example that many people can obtain a score on the Beck Depression Inventory but the quality of their depression and the structure of their cognitive schemata may be quite different. Their questionnaire attempts to measure the structural differences in the quality of the response. Perhaps a questionnaire designed to measure the structure of a subject's angry response is now more relevant as this method also examines the cognitive schemata of the individuals angry emotional state.

The subjects with low LEAS scores were predicted to have higher alexithymic scores, simply because they were functioning at a lower level of emotional development, and thus would not be so effective in their capacity to organize and assimilate emotional arousal, and would not be so effective in adapting to their environment. However no differences were found between the four groups on a measure of alexithymia. Reasons for this could be that the Toronto Alexithymia Scale was not sensitive enough to pick up the changes, or the scores reflected a social response bias. The somatization scale of the MCMI seemed to be better at discriminating between the groups as the three prison groups tended to express somatic



complaints significantly more than the control group. Perhaps somatic illness is of greater relevance to this population. The non violent offenders expressed the most somatic complaints although not at a significantly different level. However the results suggest that non violent offenders, like violent offenders, are not good at channelling their emotional states. The non violent offenders were more anxious, angry, threatened and frightened in response to anxiety-provoking situations than the other three groups. They were also significantly more anxious than the controls on the anxiety scale (as measured by the MCMI-A). The sexual violators were also significantly different from the controls on the above measure of anxiety, however they differ from the non violent offenders in that they seem to be more aware of their own anxious state. Following on from this sexual violators may be expressing their anxious emotional state in a maladaptive way via their criminal activity - sexual violation. The results of the LEAS suggest that the sexual violators process and integrate their emotional experience at a different level, than violent offenders and non violent offenders, and this process may relate to their need to sexually violate women.

#### **4-1-6 Autobiographical Information**

The information gathered from the autobiographical questionnaire suggests that one specific area, that of punishment and reward differs between the groups. This data was not analysed statistically so therefore can only be discussed generally in relation to the results analysed in section one and two. The subjects were asked to describe their experience as they remembered it. Marital status of the subjects' parents did not differ between the four groups, which supports Hillbrand et al. (1988). However the parents' reward system and punishment was found to vary between the groups supporting Burgess et al. (1988) and Ressler et al. (1986). The sexual violators received the most severe punishment from their fathers e.g., one father would rape and beat his wife in front of the children, prod them with red hot poker and beat them. Another father used to fly into a rage and shot his daughter who is now blind in one eye, and regularly beat the children. The sexual violators had the greatest number of fathers (eight), who seemed to punish their children with excessive force. The

violent offenders were next with two subjects describing fathers who applied excessive force in their punishment e.g., using the kettle cord to beat the children. The non violent offenders and controls did not describe any punishment that reached the above level of severity. There was little difference in the type of reward experienced by the offenders. However it must be kept in mind that this questionnaire recalled experiences from the past. It is not the accuracy so much as their perception of the experience that matters and their recall of experiences did appear to vary offering a possible explanation for subjects predominant criminal activity.

#### **4-2 LIMITATIONS OF THE CURRENT STUDY**

This was an exploratory study with a straightforward methodology examining emotional experience by questionnaire. Wallbott and Scherer (1988) reviewed recent arguments and data on the assessment of emotion by questionnaire. Their conclusion supported the use of questionnaires as being a methodologically sound way of collecting data. They felt that questionnaires positively outweighed other methods, such as mood induction, real life observation and recalling past incidents. The Levels of Emotional Awareness Questionnaire was able to gather data on emotional awareness in criminals which has not been tapped before. The LEAS avoids much of the social response bias, by asking subjects to respond to a particular situation, rather than give a categorical response. However one problem with the questionnaire was that many of the subjects could not relate to some of the situations. The subjects found it hard to imagine or describe what their response would be to a situation that was completely foreign to them. However this was useful information, particularly in knowing how well subjects were able to visualize their emotional response to a situation that was unfamiliar to them.

The results of the current study need to be validated on different samples. The results are tentative and need to be cautiously interpreted because of the small sample size and require confirmation by further research. It was also difficult to control subject selection. The controls were asked if they had a criminal record which no subject admitted to. However no checks were made on the subjects, and their honesty was relied upon. The three

prison groups were assigned to their group using broad guidelines. For example no violent offender had been charged with sexual violation and no sexual violater had been charged with manslaughter or murder but the sexual violaters had been extremely assaultive in their criminal activity. The non violent offender had not been charged on either of the two above catergories. However only the current file held at Paparua Prison was checked. To be completely sure a thorough check made through the Wanganui Computer would be necessary. Finding an adequate control group was almost impossible. However for this study it seemed important to find a control group that was leading a relatively stable non criminal life preferrably within the same IQ range which could be predicted as being related to a higher level of emotional developepment. This proved to be more difficult than expected and as the IQ 's of the control group were significantly different from the three prison groups much of the data was analysed with and without the control group.

#### 4-3 SUGGESTIONS FOR FUTURE RESEARCH

Previous literature has often concluded that attention needs to focus on cognitive distortions (Sterling & Edelman, 1983; Lang et al., 1988). The current study, has to some extent, examined the cognitive schemata repesenting emotional awareness via the LEAS within the criminal population. The results indicate that this is definitely a profitable direction in which to move. It may be possible to develop a similar questionnaire to explore other psychological variables, such as anger as the investigation of anger in the current study was dissapointing in that it proved to be no better than the measures of hostility found in previous literature. It could be that the subjects anger is well defended against, as suggested in the literature (Hillbrand et al., 1988), and further research on anger and violence is necessary, perhaps by examing the cognitive distortions more closely (e.g., the cognitions that mediate an angry response). The emotional responses to anxiety and anger-provoking scenarios have been useful and produced some interesting findings. However these results are dependent upon the type of scenarios used in the research. Future research could use scenarios of personal frustration and interpersonal

conflict as described by Stermac and Quinsey (1986) because this type of scenario is particularly difficult for violent offenders who react with anger.

The research on offenders has been made more complex by the use of the term 'psychopathy' (lacking a well defined criteria) which the current study avoided and instead tried to test a more clearly defined population. Well defined offender categories are necessary in order to make generalizations from the results. For example the current study found that sexual violaters and non violent offenders have problems with anxious situations which has important implications for treatment. Sexual violaters have shown that they are more aware of their emotions particularly anxiety, whereas the violent offenders have a more limited awareness of their emotional state (as measured by the LEAS). However non violent offenders were also found to express more anxiety and somatic complaints but appear to be less consciously aware of their emotional state compared to the sexual violaters. Therefore therapy for the sexual violaters would need to be approached in such a way that facilitated the understanding of their emotional state whereas violent offenders and non violent offenders would need to first learn to recognize their emotional state.

The autobiographical questionnaire was of limited value in the study, showing surprisingly few differences between the groups. It would have been perhaps more useful to keep the questions specific spending more of the time defining the subjects answers. It would also have been useful to ask subjects whether they had been sexually abused so as to relate the data more directly to Burgess et al.(1988) and Ressler et al. (1986). However the data indicated gross differences, particularly in the parental behaviour of reward and punishment, which would be interesting to explore in a more controlled way in future research.

#### 4-4 CONCLUSIONS

The following conclusions can be made from the current study.

1. Offender groups were found to vary in their level of emotional development. Sexual violaters were functioning at a higher level of

emotional development than the violent and non violent offenders. However the control group were functioning at the highest level of emotional development as expected.

2. Subjects with high Levels of Emotional Awareness Scale scores were less likely to abuse alcohol, drugs and experience somatic complaints.

3. A conclusion cannot be made in relation to emotional development and IQ, as the data was analysed with and without the control group producing conflicting results. Emotional development appears to have no relationship to IQ when analysed with the three prison groups alone supporting Lane and Schwartz (1987). However with the inclusion of the control group, a relationship was found to occur between emotional development and IQ.

4. The psychological variable, anxiety, produced important differences between the offenders in relation to their emotional development. Sexual violaters and non violent offenders were found to express the most anxiety in response to anxiety-provoking scenarios, and as measured by the MCMI (scale MCMI-A). Tentative conclusions can be made from these findings:

a) when the above finding is considered in relation to the emotional development (LEAS scores), it could be suggested that sexual violaters are more aware of their anxiety and tolerate more anxious emotional arousal than the non violaters, integrating their anxious emotional state more effectively than the non violent offenders. While non violent offenders obtain high anxiety scores they do not appear to be as fully aware, or understand their anxiety as indicated by their low level of emotional development (LEAS score).

b) it may be that the way sexual violaters process their anxious emotions, influences their need for criminal activity i.e., sexual violation.

5) Violent offenders were found to be similar to normals in their responses to anxiety and angry-provoking scenarios, which supports the literature (Lang et al., 1989; Hillbrand et al., 1988).

Tentative conclusions from the above results are:

a) violent offenders and non violent offenders are more defended in their awareness of their emotional state than the sexual violaters.

b) implications for therapy suggest that sexual violaters need to begin to

understand their behaviour, while violent offenders and non violent offenders need to first, be made aware of their many emotional states and learn to recognize them as they occur.

6. Psychological variables when tested in isolation, apart from anxiety, were not found to be particularly effective in indicating a relationship between the predominant type of criminal activity supporting Lang et al. (1988).

7. Sexual violaters and violent offenders tended on the whole to have the most severe punishment inflicted upon them by their fathers. However the social history of subjects overall, produced little information that distinguished between the groups.

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The current study leaves several specific questions unanswered and creates new avenues for future rearch.

(i) That the emotional development and IQ analysis be repeated with different samples varying in intelligence.

(ii) Examine more closely the cognitive distortions of sexual violaters in relation to their anxiety.

(iii) Devise a questionnaire similar to the one by Lane and Schwartz (1987) to examine the structure if the subject's emotional experience for other psychological variables, such as anger.

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## APPENDICES

## APPENDIX A

### SCENARIOS AND RESULTS OF PILOT STUDY

1. Peter is driving along in the car, looking for a car park on a busy Friday afternoon. He spotted one and indicated that he was about to drive into it. Suddenly a car overtook Peter and moved into his carpark.

2. Peter's partner and child are threatened whenever they leave the house. They are often followed and physically roughed up by a man who holds a strong grudge against Peter. He tells Peter's partner and child to tell Peter that if doesn't do what he wants they will be made to pay for it.

3. Peter owes a mate \$300.00 which he agreed to let him pay back at the end of the month. One evening while having a drink at the pub, he sees Peter and demands his money back. He is abusive, loud, and unreasonable. He shouts out that Peter is a filthy cheating liar refusing to pay his debts.

4. Peter has just recently started working at a sawmill. It's a great job and Peter likes the guys who work there. However Peter wanted to build himself a tool shed, and noticed bits of wood lying around the mill. One evening when Peter was alone finishing off his work he decided to take the wood. Just as Peter was about to drive off he noticed that the foreman had been watching him.

5. Peter arrives home at 1 am after a night out with his mates. They dropped him off as he was drunk, and had been disqualified from driving for a year, after a drinking and driving offence. However Peter was hungry and wanted something to eat. He decided to risk it and drive to the local burger bar. Suddenly Peter saw a traffic patrol and was waved down by two traffic officers.

6. Peter arrives home unexpectedly one afternoon. As he walks in the door, he hears laughter coming from the bedroom. When Peter enters bedroom, he finds his girlfriend in bed, with a friend of his.

7. Peter is walking down the street and is passed by three men. Peter is wearing new clothes. The three men turn and watch him and one of the men shouts "WOW" .

8. Peter is sitting on the edge of a cliff and a crowd of men appear beside him. One of the three men moves towards him.

9. Peter is in the middle of watching an exciting game of rugby on T.V. Peter's girlfriend walks in and changes the channel as she does everytime he is watching a good game. His girlfriend then says, lets watch the movie instead, it's supposed to be really good.



RESULTS OF PILOT STUDY

SCENARIO		INTENSITY			
number	ANGRY RESPONSE	1	2	3	4
1	17	4	4	7	2
2	12	0	1	1	10
3	15	3	3	9	0
4	1	0	0	1	0
5	1	0	0	1	0
6	16	0	1	5	10
7	8	4	2	2	0
8	0	0	0	0	0
9	18	2	5	8	3

SCENARIO		INTENSITY			
number	ANXIOUS RESPONSE	1	2	3	4
1	1	0	0	1	5
2	6	0	0	1	5
3	3	1	2	0	0
4	17	0	9	5	3
5	17	0	5	4	8
6	2	0	1	0	1
7	9	4	3	2	0
8	18	3	3	6	6
9	0	0	0	0	0

APPENDIX B

RESULTS OF SECTION ONE AND TWO

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## LEGEND FOR APPENDIX B

**LEAS:** Levels of Emotional Awareness Scale scores

**TAS:** Toronto Alexithymia Scale scores

**ANXIETY:** Anxiety, Measured by the Millon Clinical Multiaxial Inventory (MCMI-A scale scores)

**SOMAT:** Somatization, Measured by the Millon Clinical Multiaxial Inventory (MCMI-H scale scores)

**DEPR :** Depression, Measured by the Millon Clinical Multiaxial Inventory (MCMI-D scale scores)

**B:** Alcohol Abuse, Measured by the Millon Clinical Multiaxial Inventory (MCMI - B scale scores)

**T:** Drug Abuse, Measured by the Millon Clinical Multiaxial Inventory (MCMI - T scale scores)

**ANX/IN:** Anger/ In, Measured by the State Trait Anger Expression Inventory

**ANX/OUT:** Anger/ Out, Measured by the State Trait Anger Expression Inventory

**COLUMN 12:** Anger expression scale (AX/EX) of the State Trait Anger Expression Inventory

**COLUMN 15:** Leas Categories 1 = leas scores > 49; 2 = leas scores <50

**PER:** Performance IQ

**VERBAL :** Verbal IQ

**FULL SCALE:** Full Scale IQ

**GROUP:** 1 = violent offender; 2 = non violent offender; 3 = sexual violater; 4 = control

**ANX. ANXIETY:** Anxious responses to the anxiety-provoking scenarios

**ANX. ANGRY:** Angry responses to the anxiety-provoking scenarios

**ANX. THREAT:** Threatened responses to the anxiety-provoking scenarios

**ANX. FRIGHT:** Frightened responses to the anxiety-provoking scenarios

**ANG. ANXIOUS:** Anxious responses to the anger-provoking scenarios

**ANG. ANGRY:** Angry responses to the anger-provoking scenarios

**ANG. THREAT:** Threatened responses to the anger-provoking scenarios

**ANG. FRIGHT:** Frightened responses to the anger-provoking scenarios

**AGE:** Age of subjects

	LEAS	TAS	ANXIETY	SOMAT.	DEPR.	B	T	ANX/IN	ANX/OUT	Column 12	Column 15
1	62.0	83.0	41.0	35.0	38.0	62.0	35.0	59.0	60.0	67.0	2
2	52.0	86.0	115.0	102.0	103.0	75.0	75.0	53.0	47.0	69.0	1
3	69.0	53.0	64.0	44.0	79.0	78.0	69.0	40.0	77.0	82.0	2
4	57.0	71.0	52.0	56.0	75.0	62.0	73.0	57.0	55.0	64.0	2
5	59.0	55.0	38.0	41.0	10.0	75.0	95.0	53.0	50.0	56.0	2
6	52.0	75.0	94.0	64.0	86.0	70.0	64.0	69.0	41.0	62.0	2
7	55.0	60.0	35.0	10.0	20.0	30.0	75.0	45.0	57.0	60.0	2
8	48.0	72.0	110.0	94.0	108.0	97.0	110.0	69.0	65.0	80.0	1
9	74.0	75.0	79.0	72.0	56.0	20.0	77.0	59.0	50.0	57.0	2
10	55.0	91.0	94.0	58.0	93.0	81.0	83.0	43.0	77.0	80.0	2
11	55.0	86.0	48.0	54.0	41.0	81.0	85.0	65.0	57.0	67.0	2
12	48.0	77.0	98.0	72.0	86.0	68.0	77.0	67.0	57.0	69.0	1
13	43.0	64.0	60.0	60.0	61.0	69.0	85.0	48.0	63.0	61.0	1
14	41.0	52.0	69.0	64.0	69.0	91.0	115.0	65.0	65.0	70.0	1
15	50.0	92.0	115.0	115.0	108.0	88.0	90.0	69.0	47.0	74.0	2
16	49.0	48.0	41.0	51.0	20.0	75.0	85.0	69.0	67.0	49.0	1
17	38.0	68.0	38.0	47.0	41.0	62.0	62.0	50.0	47.0	57.0	1
18	52.0	86.0	104.0	73.0	88.0	100.0	83.0	50.0	62.0	66.0	2
19	54.0	54.0	82.0	61.0	48.0	81.0	115.0	65.0	63.0	70.0	2
20	35.0	73.0	56.0	51.0	52.0	94.0	115.0	57.0	73.0	80.0	1
21	54.0	73.0	52.0	51.0	35.0	68.0	95.0	63.0	57.0	67.0	2
22	70.0	44.0	44.0	41.0	52.0	20.0	50.0	45.0	63.0	53.0	2
23	60.0	73.0	64.0	62.0	56.0	94.0	115.0	53.0	69.0	72.0	2
24	52.0	36.0	15.0	60.0	10.0	35.0	66.0	61.0	55.0	62.0	2
25	40.0	59.0	79.0	62.0	56.0	75.0	110.0	57.0	74.0	80.0	1
26	47.0	93.0	95.0	73.0	77.0	70.0	73.0	65.0	55.0	67.0	1
27	36.0	60.0	35.0	38.0	35.0	55.0	64.0	59.0	50.0	66.0	1
28	60.0	70.0	79.0	58.0	81.0	72.0	100.0	69.0	69.0	80.0	2
29	49.0	95.0	92.0	64.0	79.0	62.0	73.0	55.0	53.0	64.0	2
30	55.0	67.0	41.0	44.0	35.0	35.0	45.0	69.0	37.0	67.0	2
31	65.0	46.0	15.0	25.0	35.0	30.0	64.0	59.0	47.0	64.0	2

	LEAS	TAS	ANXIETY	SOMAT.	DEPR.	B	T	ANX/IN	ANX/OUT	Column 12	Column 15
32	55.0	52.0	15.0	10.0	38.0	20.0	15.0	43.0	47.0	46.0	2
33	58.0	59.0	35.0	38.0	20.0	20.0	40.0	57.0	50.0	62.0	2
34	65.0	61.0	82.0	64.0	61.0	75.0	81.0	63.0	53.0	65.0	2
35	71.0	56.0	15.0	25.0	41.0	0	0	45.0	47.0	46.0	2
36	72.0	70.0	44.0	35.0	56.0	20.0	60.0	70.0	57.0	74.0	2
37	67.0	65.0	15.0	25.0	35.0	20.0	35.0	53.0	60.0	54.0	2
38	60.0	51.0	35.0	54.0	38.0	20.0	60.0	69.0	67.0	80.0	2
39	59.0	42.0	41.0	47.0	52.0	30.0	45.0	43.0	41.0	28.0	2

	PERF.	VERBAL	GROUP	FULL SCALE IQ	ANX.ANXIETY	ANX.ANGRY.	ANX.THREAT.	ANX.FRIGHT.
1	118.000	84.000	3	99.0	3.50	0	3.50	3.00
2	81.000	83.000	3	83.0	4.00	2.00	3.50	4.00
3	135.000	126.000	3	131.0	4.00	2.50	3.50	3.50
4	88.000	78.000	3	81.0	1.50	.50	.50	2.50
5	110.000	98.000	3	103.0	2.50	2.50	2.00	2.00
6	96.000	94.000	3	94.0	4.00	3.50	2.00	3.50
7	107.000	120.000	3	115.0	2.00	.50	1.00	1.00
8	114.000	76.000	3	91.0	2.50	3.50	4.00	2.00
9	90.000	98.000	3	94.0	1.50	1.00	3.00	2.00
10	112.000	79.000	3	93.0	0	0	0	0
11	98.000	111.000	2	106.0	2.50	1.50	2.00	1.00
12	90.000	86.000	2	87.0	1.50	1.50	1.50	1.50
13	97.000	92.000	2	93.0	2.50	1.50	3.50	2.00
14	98.000	84.000	2	90.0	3.00	3.50	3.50	2.00
15	85.000	67.000	2	73.0	3.00	4.00	4.00	4.00
16	107.000	99.000	2	103.0	4.00	2.00	1.00	.50
17	65.000	61.000	2	61.0	2.00	3.00	2.00	1.50
18	72.000	78.000	2	74.0	2.50	2.00	2.50	2.00
19	90.000	98.000	2	98.0	4.00	4.00	4.00	4.00
20	133.000	96.000	1	113.0	2.00	1.50	.50	1.00
21	88.000	81.000	1	83.0	1.50	.50	0	0
22	137.000	120.000	1	129.0	1.00	0	.50	.50
23	116.000	80.000	1	95.0	0	3.50	3.50	3.00
24	98.000	84.000	1	90.0	1.00	.50	1.00	.50
25	114.000	76.000	1	91.0	1.00	2.00	2.50	0
26	97.000	83.000	1	88.0	1.00	0	0	0
27	99.000	74.000	1	84.0	2.00	2.00	1.00	.50
28	131.000	109.000	1	119.0	1.00	1.50	.50	0
29	97.000	71.000	1	81.0	3.50	2.50	3.00	3.00
30	110.000	89.000	4	98.0	3.00	.50	2.00	2.50
31	98.000	132.000	4	118.0	2.00	1.50	1.50	1.50

	PERF.	VERBAL	GROUP	FULL SCALE IQ	ANX.ANXIETY	ANX.ANGRY.	ANX.THREAT.	ANX.FRIGHT.
32	107.000	99.000	4	103.0	2.00	1.50	2.50	.50
33	120.000	111.000	4	116.0	3.00	1.00	1.50	2.00
34	116.000	112.000	4	115.0	3.50	.50	2.50	3.00
35	124.000	126.000	4	127.0	3.00	.50	2.50	2.50
36	125.000	112.000	4	118.0	1.50	3.00	1.50	1.00
37	111.000	99.000	4	105.0	2.50	1.00	2.00	1.50
38	120.000	120.000	4	121.0	3.50	1.00	3.00	3.00
39	118.000	126.000	4	124.0	1.00	0	1.00	.50



	ANG.ANXIOUS.	ANG.ANGRY.	ANG.THREAT.	ANG.FRIGHT.	AGE
1	.50	3.00	0	0	31
2	2.50	2.50	2.50	2.00	21
3	2.00	4.00	2.00	.50	46
4	2.00	3.00	1.00	0	26
5	2.50	2.00	2.00	2.00	24
6	2.50	3.00	0	1.50	39
7	1.00	2.50	0	0	27
8	1.50	2.00	2.00	0	30
9	0	3.50	4.00	4.00	22
10	4.00	4.00	0	0	37
11	1.00	3.00	1.00	0	31
12	1.50	1.50	1.00	.50	21
13	2.50	2.00	2.00	0	23
14	1.50	2.50	1.50	0	30
15	2.00	2.50	2.00	2.00	25
16	.50	3.00	2.00	0	29
17	4.00	3.50	2.50	1.50	25
18	2.50	2.50	2.50	1.00	27
19	4.00	4.00	2.00	0	23
20	0	2.50	.50	0	26
21	2.50	2.50	2.00	0	23
22	0	1.50	0	0	28
23	2.00	4.00	.50	0	24
24	2.00	2.00	2.50	0	30
25	2.00	1.50	0	0	26
26	3.00	3.00	1.50	0	20
27	.50	1.00	0	0	22
28	2.00	2.50	1.50	1.00	37
29	2.50	2.50	1.50	1.50	21
30	2.50	3.00	2.00	1.00	25
31	.50	2.50	.50	0	31

	ANG.ANXIOUS.	ANG.ANGRY.	ANG.THREAT.	ANG.FRIGHT.	AGE
32	2.00	1.50	1.00	.50	31
33	2.00	2.50	1.50	.50	30
34	0	2.50	.50	0	22
35	.50	2.50	2.50	1.00	25
36	•	•	•	•	41
37	2.00	2.50	1.50	.50	29
38	1.00	3.00	2.00	0	26
39	1.00	0	1.00	1.00	32

## APPENDIX C

### RESULTS OF SECTION THREE

The autobiographical questionnaire was given to subjects to elicit key information regarding their childhood and personal life. No statistical analysis was carried out on the data although a written review of subjects' responses is outlined below. The results of each question are written up separately. All subjects were asked to recall, from their own experience.

#### *Are your parents still together?*

##### **Violent Offenders.**

Five subjects had parents who lived together. One subject's mother had died while living in the marriage and 4 subjects' parents had divorced, 3 at less than 5 years of age and 1 at less than 10 years of age.

##### **Non Violent Offenders.**

Two subjects had parents who lived together, 3 subjects' parents ( 2 fathers and 1 mother) died at age 11 years and above, all of whom lived within their marriage. Four subjects had parents who had divorced 2 at less than 5 years of age, 1 at 13 years and the other at 21 years of age.

##### **Sexual Violaters.**

3 subjects had parents living together. Two parents died (1 mother at 11 years of age, who lived within the marriage, and one mother after the subject had left home, at approximately 18 years of age. (This mother had separated from her husband when the subject was aged 4 years). Five subjects had parents who had divorced - 2 at less than 5 years of age and 2 between 5 and 10 years of age, 1 subject did not say. 5 subjects had parents living together. One subject's father died when he was 28, having lived within the marriage. 4 subjects had parents who divorced between age 12 and 20 years.

*Were your parents happy together?"*

	Violent offenders	Nonviolent offenders	Sexual violaters	Controls
Yes	4	4	5	3
Sometimes	2	3	1	0
No	4	2	4	7

*How did your parents punish you?*

Subjects were asked to list the most usual type of punishment that they received.

**Violent Offenders.**

**Mother.**

3 subjects had mothers that never punished them (and 2 of the subject's fathers did not punish, or did so rarely, as well).

7 subjects had mothers who either smacked or hit the subject with a wooden spoon or jug cord. Two mothers tried to prevent their sons from leaving the house. This was successful in one subject's case but the other subject disobeyed the order and would escape.

**Father.**

6 subjects were not punished by their father. Of these 6, 4 fathers left it up to their wives to do the punishing (two of whom did punish and two of whom did not). The remaining 2 fathers were absent from the family home.

2 subjects had fathers who would apply the occasional slap around the ears.

2 subjects had fathers who applied extremely harsh physical punishment.

One father in particular used the kettle cord, or fists, often beating up his wife as well as the child. The subject stated that as he was the eldest he felt obliged to protect the rest of the family from his father's wrath, often taking the brunt of his angry outburst.

**Non Violent Offenders.**

**Mother.**

2 subjects had mothers that never punished (but fathers who did).

4 subjects had mothers who refused permission to leave the house and/or yelled at them.

1 lived in a Boys' Home, missed out on privileges and given hidings.

1 was given a hiding .

1 was told to wait until his father got home.

Father.

2 subjects had fathers who never punished them.

3 subjects had fathers who gave them hidings.

3 subjects had fathers who removed privileges.

1 subject was sent to his room.

### **Sexual Violators.**

Mother.

4 subjects had mothers who did not punish them (but fathers who did).

6 subjects had mothers who told them off and either sent them to their room, locked them outside, or gave them a slap around the ears or a hiding.

One of these was often told 'to wait until his father got home'.

Father.

2 subjects had fathers who punished them with extreme physical force.

One of these fathers would tie up the children, prod them with red-hot poker, give them electric shocks and hidings with a steel bar. He would rape and beat his wife in front of the children. However, what seemed to hurt the subject most was being sent to bed without dinner and having food removed and eaten from his plate before he could eat it. The other father had a low frustration point, he would fly into a rage and take it out on the children. He shot his daughter, who is now blind in one eye.

6 subjects had fathers who would give them hidings.

1 subject had a father who never punished him because he was too busy working.

1 subject had a father who sent him to his room.

### **Controls.**

Mothers.

9 subjects had mothers who carried out a combination of verbal warnings and hidings, or removal of privileges. (1 of these also told the subject to

wait until his father got home).

1 subject had a mother who never punished.

Fathers.

All of the 10 fathers gave verbal warnings and if that was not enough either hit or smacked the subjects, or removed privileges.

### *How did your parents reward you?*

#### **Violent Offenders.**

Mothers.

3 subjects had mothers (and fathers) who never did.

3 subjects had mothers who gave money and/or food or praise.

4 subjects had mothers who gave food, sweets and books. Only 1 of these gave any sort of physical affection, like a hug.

Fathers.

4 subjects had fathers who never did.

3 subjects had fathers who were absent.

2 subjects had fathers who gave material things or money.

1 subject had a father who gave him a smile.

#### **Non Violent Offenders**

Mothers.

2 subjects had mothers (and fathers) who never did.

5 subjects had mothers who gave physical affection e.g. love, hugs and/or material things (4 mothers gave physical affection).

2 subjects had mothers who gave money.

Fathers.

5 subjects had fathers who never did.

3 subjects had fathers who gave physical affection e.g., a hug or being allowed to help him.

1 subject had a father who gave him a sly bottle of beer on the side.

#### **Sexual Violaters.**

Mothers.

4 subjects had mothers (and fathers) who never rewarded them.

6 subjects had mothers who praised them with kind words and/or gave physical affection and money (only 2 of these 6 gave physical affection).

Fathers.

4 subjects had fathers who never rewarded them.

5 subjects had fathers who gave praise and/or material things. Two of these gave physical affection, one taking the subject on rides to the East Coast.

1 subject had a father who gave material things not love.

---

### **Controls.**

Mothers.

2 subjects had mothers (and fathers ) who never did.

8 subjects had mothers who gave praise, and one of these mothers gave money as well.

Fathers.

5 subjects had fathers who never rewarded them.

5 subjects had fathers who did reward them with praise.

*How did you react to the limits your parents set you?*

### **Violent Offenders.**

5 were compliant but 2 became quite rebellious from age 11 onwards.

5 subjects rebelled against the limits from an early age.

### **Non Violent Offenders.**

7 subjects were compliant most of the time. Often they would give their parents cheek but usually 'towed the line' in the end.

2 subjects rebelled from an early age.

### **Sexual Violators.**

2 subjects were compliant but expressed fury, anger or annoyance at the limits.

1 subject rebelled until age 8 - 9 then became more compliant.

2 subjects said they occasionally rebelled.

2 subjects did not know.

3 subjects rebelled from an early age.

### **Controls.**

2 subjects did not answer.

5 subjects were mostly compliant.

1 subject was compliant until age 11 and then rebelled.

1 subject described himself as slightly stubborn and rebellious.

1 subject was noncompliant as a young child but later became compliant about age 8.

---

### ***Did your parents have problems of their own?***

#### **Violent Offenders.**

##### **Mothers.**

3 mothers were heavy drinkers/alcoholics, having many angry outbursts and being physically abusive to the subjects.

2 mothers were depressed (1 was on medication).

##### **Fathers.**

4 subjects had fathers who were heavy drinkers/alcoholics and were physically abusive to the children.

#### **Non Violent Offenders.**

##### **Mothers.**

1 subject had a mother who drank and was also suicidal and depressed.

2 subjects had depressed mothers (1 on medication).

##### **Fathers.**

6 subjects had fathers who became physically abusive, including 2 who had problems with drinking to excess.

#### **Sexual Violaters.**

##### **Mothers.**

3 subjects had mothers with depression, one of whom drank heavily (had a problem with alcohol).



Fathers.

6 subjects had fathers who had a problem with alcohol and who became physically abusive towards the children.

Controls.

Mothers.

4 subjects described their mothers as depressed, two of these having angry outbursts.

Fathers.

1 father was described as a heavy drinker and prone to violent outbursts.

*Table . How did your Mother and Father react when you were excited and /or happy; distressed and /or angry; depressed?*

		Response: Excited	Response: Distressed	Response: Depressed
		or Happy	or Angry	
Violent offenders	same	5	2	3
	don't know	3	3	2
	supportive	1	3	3
	never knew	1	2	2
Nonviolent offenders	same	3	3	2
	don't know	5	2	3
	supportive	1	4	4
	never knew	0	0	0
Sexual violaters	same	5	4	3
	don't know	3	2	2
	supportive	1	2	2
	never knew	1	2	3
Controls	same	5	4	4
	don't know	3	1	2
	supportive	1	4	1
	never knew	1	1	3

## APPENDIX D.

### Levels of Emotional Awareness Questionnaire

On the top of each page are 20 situations. Please describe what you would "feel" in your answers. You may make your answers as brief or as long as necessary to express how you would feel. In each situation there is another person mentioned. Please indicate how you think that other person would feel as well.

1. A neighbour asks you to repair a piece of furniture. As the neighbour looks on, you begin hammering a nail but then miss the nail and hit your finger. How would you feel? How would the neighbour feel?
2. You are walking through the desert with a guide. You ran out of water hours ago. The nearest well is two miles away according to his map. How would you feel? How would the guide feel?
3. A loved one gives you a backrub after you return from a hard day's work. How would you feel? How would your partner feel?
4. You are running in a race with a friend whom you have trained with for some time. As you near the finish line, you twist your ankle, fall to the ground and are unable to continue. How would you feel? How would your friend feel?

5. You are travelling in a foreign country. A friend makes rude remarks about your own country. How would you feel? How would your friend feel?
6. As you drive over a suspension bridge you see a man standing on the other side of the guardrail, looking down at the water. How would you feel? How would the man feel?
7. Your girlfriend has been gone for several weeks but finally comes home. As she opens the door ... How would you feel? How would she feel?
8. Your boss tells you that your work has been unacceptable and needs to be improved. How would you feel? How would he feel?
9. You are standing in line at the bank. The person in front of you steps up to the window and begins a very complicated transaction. How would you feel? How would the person in front of you feel?
10. You and your wife are driving home from an evening out with friends. As you turn onto your block you see fire engines parked near your home. How would you feel? How would your wife feel?
11. You have been working hard on a project for several months. Several days after giving it in, your boss stops by to tell you that your work was excellent. How would you feel? How would your boss feel?
12. You receive an unexpected toll call from a doctor informing you that your mother has died. How would you feel? How would the doctor feel?

13. You tell a friend who is feeling lonely that she/he can call you whenever he/she needs to talk. One night she/he calls at 4 a.m. How would you feel? How would your friend feel?

14. Your dentist has told you that you have several holes and gives you an appointment for a return visit. How would you feel? How would the dentist feel?

15. Someone who has been critical of you in the past pays you a compliment. How would you feel? How would the other person feel?

16. Your doctor has told you to avoid fatty foods. A new colleague at work calls to say that he is going out for pizza and invites you to go along. How would you feel? How would your colleague feel?

17. You and a friend agree to invest money together to begin a new business venture. Several days later you call the friend back, only to learn that she/he has changed her/his mind. How would you feel? How would your friend feel?

18. You sell a favourite possession of your own in order to buy an expensive gift for your partner. When you give him/her the gift, he/she asks whether you sold the possession. How would you feel? How would your partner feel?

19. You fall in love with someone who is both attractive and intelligent. Although this person is not well off financially, this doesn't matter to you - your income is adequate. When you begin to discuss marriage, you

learn that she/he is actually from an extremely wealthy family. She/he did not want that known for fear that people would only be interested in him/her for his/her money. How would you feel? How would she/he feel?

20. You and your best friend are in the same line of work. There is a prize given annually to the best performance of the year. The two of you work hard to win the prize. One night the winner is announced: your friend. How would you feel? How would your friend feel?

## APPENDIX E

### PART 1 DIRECTIONS

A number of statements that people use to describe themselves are given below. Read each statement and then fill in the circle with the number which indicates **how you feel right now**. Remember that there are no right or wrong answers. Do not spend too much time on any one statement, but give the answer which seems to best describe your present feelings.

(1) not at all (2) somewhat (3) moderately so (4) very much so.

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#### How I Feel Right Now

1. I am furious.
2. I feel irritated.
3. I feel angry.
4. I feel like yelling at somebody.
5. I feel like breaking things.
6. I am mad.
7. I feel like banging on the table.
8. I feel like hitting someone.
9. I am burned up.
10. I feel like swearing.

### PART 2 DIRECTIONS

Read each statement and then fill in the circle with the number which indicates **how you generally feel**.

(1) almost never (2) sometimes (3) often (4) almost always

#### How I Generally Feel

11. I am quick tempered.
12. I have a fiery temper.
13. I am a hotheaded person.
14. I get angry when I'm slowed down by others' mistakes.
15. I feel annoyed when I am not given recognition for doing good work.
16. I fly off the handle.
17. When I get mad, I say nasty things.
18. It makes me furious when I am criticized in front of others.
19. When I get frustrated, I feel like hitting someone.
20. I feel infuriated when I do a good job and get a poor evaluation.

## PART 3 DIRECTIONS

Everyone feels angry or furious from time to time, but people differ in the ways they react when they are angry. A number of statements are listed below which people use to describe their reactions when they feel angry or furious. Read each statement and then fill in the circle with the number which indicates **how often you generally react or behave** in the manner described when you are feeling angry or furious.

(1) almost never (2) sometimes (3) often (4) almost always

### When Angry or Furious

21. I control my temper.
22. I express my anger.
23. I keep things in.
24. I am patient with others.
25. I pout or sulk.
26. I withdraw from people.
27. I make sarcastic remarks to others.
28. I keep my cool.
29. I do things like slam doors.
30. I boil inside, but I don't show it.
31. I control my behaviour.
32. I argue with others.
33. I tend to harbour grudges that I don't tell anyone about.
34. I strike out at whatever infuriates me.
35. I can stop myself from losing my temper.
36. I am secretly quite critical of others.
37. I am angrier than I am willing to admit.
38. I calm down faster than most people.
39. I say nasty things.
40. I try to be tolerant and understanding.
41. I'm irritated a great deal more than people are aware of.
42. I lose my temper.
43. If someone annoys me, I'm apt to tell him or her how I feel.
44. I control my angry feelings.

APPENDIX F

MILLON CLINICAL MULTIAXIAL INVENTORY



1. I always follow my own ideas rather than do what others expect of me.
2. All my life I have worn myself out trying to please other people.
3. Talking to other people has almost always been difficult and painful for me.
4. I believe in being strong willed and determined in everything I do.
5. In the last few weeks I begin to cry even when the slightest of things goes wrong.
6. I love to have many different social activities and like to go from one to another.
7. I am a very weak person who has to lean on others for almost everything.
8. I always feel I am not wanted in a group.
9. I often criticize people strongly if they annoy me.
10. I am content to be a follower of others.
11. I enjoy doing so many different things that I can't make up my mind what to do first.
12. I am very changeable in my likes and dislikes.
13. I have little interest in making friends.
14. I think I am a very sociable and out-going person.
15. I know I'm a superior person, so I don't care what people think.
16. People have never given me enough recognition for the things I've done.
17. I have a drinking problem that I've tried unsuccessfully to end.
18. Lately, I get butterflies in my stomach and break out in cold sweats.
19. I have always wanted to stay in the background during social activities.
20. I will often do things for no reason other than they might be fun.
21. I keep my room well organized with everything in the correct place all the time.
22. I am the sort of person who changes his opinions and attitudes from day to day.
23. There have been times when people have become annoyed with me because I talked too much or too fast for them.
24. I'll make a sharp and critical remark to someone if they deserve it.
25. I find myself quick to agree with the opinions of others.
26. I tend to burst out in tears or in anger for unknown reasons.
27. Lately, I've begun to feel lonely and empty.
28. I have a talent to be dramatic.
29. I have a hard time keeping my balance when walking.
30. I enjoy intense competition.
31. When I run into a crisis, I quickly look for someone to help me.
32. I prefer to be with people who are religious.
33. I feel weak and tired much of the time.
34. Something exciting always comes along to pull me out of a sad mood.
35. My drug habit has often gotten me into a good deal of trouble.
36. Lately, I find myself crying without any reason.
37. I have always avoided getting involved with people socially.
38. Under no circumstances do I ever let myself be tricked by people who say they need help.
39. One sure way to make a peaceful world is by improving people's morals.
40. I am a very well read person.
41. I find it hard to sympathize with people who are always unsure about things.
42. I am a very agreeable and submissive person.
43. My own "bad temper" has been a big cause of my unhappiness.
44. I have always felt a pain somewhere in my body.
45. I get very depressed now by even minor things.
46. Sometimes my mind goes so fast I can hardly keep up with it.
47. I'm so quiet and withdrawn, most people don't even know I exist.
48. I like to flirt with members of the opposite sex.
49. I am a quiet and fearful person.
50. I'm a very erratic person, changing my mind and feelings all the time.
51. I feel very tense when I think of the day's happenings.
52. Drinking alcohol on my part has never caused any real problems in my work.
53. Lately, my strength seems to be draining out of me, even in the morning.
54. I've begun to feel like a failure in recent weeks.
55. I hate to talk, even to people I know.
56. I have always had a terrible fear that I will lose the love of people I need very much.
57. There have been times when I had so much energy that I didn't need any sleep for days.
58. Lately, I have begun to feel like smashing things.
59. I have given serious thought recently to doing away with myself.
60. I am always looking to make new friends and meet new people.
61. I keep very close track of my money so I am prepared if a need comes up.

62. I was on the front cover of several magazines last year.
63. Few people like me.
64. If someone criticized me for making a mistake, I would quickly point out some of that person's mistakes.
65. I often have difficulty making decisions without seeking help from others.
66. I often let my angry feelings out and then feel terribly guilty about it.
67. Lately, I feel jumpy and under terrible strain, but I don't know why.
68. I very often lose my ability to feel any sensations in parts of my body.
69. When I am home alone I telephone one friend after another just to talk.
70. Taking so-called illegal drugs may be unwise, but in the past I found I needed them.
71. Lately, I feel tired all the time.
72. Lately, I can't seem to sleep, and wake up just as tired as when I went to bed.
73. I have a tight feeling in the pit of my stomach every few days or so.
74. I used to enjoy performing for family friends when I was younger.
75. We should respect earlier generations and not think we know better than they.
76. I feel terribly depressed and sad much of the time now.
77. I am the sort of person that others take advantage of.
78. I always try hard to please others, even when I dislike them.
79. Serious thoughts of suicide have occurred to me for many years.
80. I quickly figure out how people are trying to cause me trouble.
81. I have periods of so much energy that I can't sit still at all.
82. I can't understand it, but I seem to enjoy hurting persons I love.
83. A long time ago, I decided it's best to have little to do with people.
84. I am ready to fight to the death before I'd let anybody take away my self-determination.
85. Since I was a child, I have always had to watch out for people who were trying to cheat me.
86. When things get boring, I like to stir up some excitement.
87. I have an alcoholic problem that has made difficulties for me and my family.
88. If a person wants something done that calls for real patience, they should ask me.

89. I am probably the most creative thinker among people I know.
90. I have not seen a car in the last ten years.
91. I feel I am not a likeable person.
92. Punishment never stopped me from doing what I wanted.
93. There are many times, when for no reason, I feel cheerful and full of excitement.
94. It would be good for me to be married to a person who is more grownup and less immature than I am.
95. I very often say things quickly that I regret having said.
96. In recent weeks I feel worn out for no special reason.
97. I feel very guilty lately because I am not able to do things right anymore.
98. Ideas keep turning over and over in my mind and they won't go away.
99. I've become quite discouraged and sad about things recently.
100. Many people have been spying into my private life for years.
101. I have always gone for long periods when I haven't talked to anyone.
102. I hate or fear most people.
103. I speak out my opinions about things no matter what others may think.
104. Sometimes I do things so fast that others get annoyed with me.
105. My habit of abusing drugs has caused me to not work in the past.
106. I am always willing to give in to others to avoid disagreements.
107. I am often cross and grouchy.
108. I just don't have the strength lately to fight back.
109. Lately, I have to think things over and over again for no good reason.
110. Looking back on my life, I know I have made others suffer as much as I have suffered.
111. I use my charm to get the attention of other people.
112. Though my body pains and problems are many, nobody seems to understand them.
113. When things scared me as a child, I almost always ran to my mother.
114. Lately, I've been sweating a great deal and feeling tense.
115. Sometimes I feel like I must do something to help myself or someone else.
116. I keep so busy doing so many things that people can't figure out what I'll be doing next.
117. I've become very jumpy in the last few weeks.

18. I keep having strange thoughts that I wish I could get rid of.
19. I have a great deal of trouble trying to control an impulse to drink to excess.
20. Most people think that I'm a worthless nothing.
21. I very often feel a lump in my throat.
22. I have succeeded over the years in drinking a minimum of alcohol.
23. I have always "tested" people to find out how much they can be trusted.
24. Even when I'm awake, I don't seem to notice people who are near me.
25. It is very easy for me to make many friends.
26. I always make sure that my work is well planned and organized.
27. I very often hear things so well that it bothers me.
28. If it weren't for the medicines I'm taking, I'd be running around with too much energy in me.
29. I don't blame anyone who takes advantage of some one who allows it.
30. I am very easily led by people.
31. I've many ideas that are ahead of the times.
32. Lately, I've been feeling sad and blue and I can't seem to snap out of it.
33. I think it is always best to seek help in what I do.
34. All my life I have felt guilty for letting down so many people.
35. I have always known what my mind tells me and I have never listened to what others say.
36. In the last few years, I have felt so guilty that I may do something terrible to myself.
37. I never sit on the sidelines when I'm at a party.
38. People tell me that I'm a very proper and moral person.
39. There have been times recently when I ran around doing so many things at once that I got worn out.
40. I have a problem using so-called illegal drugs that has led to family arguments.
41. I am very ill-at-ease with members of the opposite sex.
42. I have a way of speaking directly that often makes people angry.
43. I don't mind that people are not interested in me.
44. Frankly, I lie quite often to get out of trouble.
45. People can easily change my ideas, even if I thought my mind was made up.
46. Others have tried to do me in, but I have the will power to overcome them.
47. I often say annoying things, without thinking, that hurt someone's feelings.
48. I often make people angry by bossing them.
49. I have great respect for those in authority over me.
50. I have almost no close ties with other people.
51. People have said in the past that I became too interested and too excited about too many things.
52. I have flown across the Atlantic thirty times in the last year.
53. I believe in the saying, "early to bed and early to rise . . ."
54. I attempt to be the life of the party.
55. I could never be friendly with people who do immoral things.
56. My parents always disagreed with each other.
57. On occasion I have had as many as ten or more drinks without becoming drunk.
58. In social groups I am almost always very self-conscious and tense.
59. I think highly of rules because they are a good guide to follow.
60. Ever since I was a child, I have been losing touch with the real world.
61. I rarely feel anything strongly.
62. I have a strong need to depend on others.
63. Ideas very often run through my mind much faster than I can speak them.
64. Sneaky people often try to get the credit for things I have done or thought of.
65. I would really enjoy being in show business.
66. I have the ability to be successful in almost anything I do.
67. Lately, I have gone all to pieces.
68. I have always looked for help in everything I do.
69. There has never been any hair on either my head or my body.
70. When I am with others I like to be the center of attention.
71. I always feel like an outsider in social groups.
72. I'm the kind of person who can walk up to anyone and tell him or her off.
73. I prefer to be with people who will be protective of me.
74. I've had many periods in my life when I was so cheerful and used up so much energy that I fell into a low mood.
75. I have had difficulties in the past stopping myself from over-using drugs or alcohol.

APPENDIX G

TORONTO ALEXITHYMIA SCALE

Please mark the following items as they refer to you with a tick or a cross

When I cry I always know why

true[ ] fairly true[ ] don't know[ ] not really true[ ] not true[ ]

Daydreaming is a waste of time

true[ ] fairly true[ ] don't know[ ] not really true[ ] not true[ ]

I wish I were not so shy

true[ ] fairly true[ ] don't know[ ] not really true[ ] not true[ ]

I often get confused about what emotion I am feeling

true[ ] fairly true[ ] don't know[ ] not really true[ ] not true[ ]

I often daydream about the future

true[ ] fairly true[ ] don't know[ ] not really true[ ] not true[ ]

I seem to make friends as easily as others do

true[ ] fairly true[ ] don't know[ ] not really true[ ] not true[ ]

Knowing the answers to problems is more important than knowing the reasons for the answers

true[ ] fairly true[ ] don't know[ ] not really true[ ] not true[ ]

It is difficult for me to find the right words for my feelings

true[ ] fairly true[ ] don't know[ ] not really true[ ] not true[ ]

I like to let people know where I stand on things

true[ ] fairly true[ ] don't know[ ] not really true[ ] not true[ ]

I have physical sensations that even doctors don't understand

true[ ] fairly true[ ] don't know[ ] not really true[ ] not true[ ]

It's not enough for me that something gets the job done; I need to know why and how it works

true[ ] fairly true[ ] don't know[ ] not really true[ ] not true[ ]

I'm able to describe my feelings easily

true[ ] fairly true[ ] don't know[ ] not really true[ ] not true[ ]

I prefer to analyze problems rather than just to describe them

true[ ] fairly true[ ] don't know[ ] not really true[ ] not true[ ]

When I'm upset I don't know if I'm sad, frightened or angry

true[ ] fairly true[ ] don't know[ ] not really true[ ] not true[ ]

I use my imagination a great deal

true[ ] fairly true[ ] don't know[ ] not really true[ ] not true[ ]

I spend much time daydreaming whenever I have nothing else to do

true[ ] fairly true[ ] don't know[ ] not really true[ ] not true[ ]

I am often puzzled by sensations in my body

true[ ]    fairly true[ ]    don't know[ ]    not really true[ ]    not true[ ]

I daydream rarely

true[ ]    fairly true[ ]    don't know[ ]    not really true[ ]    not true[ ]

I prefer to just let things happen rather than to understand why they turned out that way

true[ ]    fairly true[ ]    don't know[ ]    not really true[ ]    not true[ ]

I have feelings that I can't quite identify

true[ ]    fairly true[ ]    don't know[ ]    not really true[ ]    not true[ ]

Being in touch with emotions is essential

true[ ]    fairly true[ ]    don't know[ ]    not really true[ ]    not true[ ]

I find it hard to describe how I feel about people

true[ ]    fairly true[ ]    don't know[ ]    not really true[ ]    not true[ ]

People tell me to describe my feelings more

true[ ]    fairly true[ ]    don't know[ ]    not really true[ ]    not true[ ]

One should look for deeper explanations

true[ ]    fairly true[ ]    don't know[ ]    not really true[ ]    not true[ ]

I don't know what's going on inside me

true[ ]    fairly true[ ]    don't know[ ]    not really true[ ]    not true[ ]

I often don't know why I'm angry

true[ ]    fairly true[ ]    don't know[ ]    not really true[ ]    not true[ ]

APPENDIX H.

SCENARIOS

Peter is in the middle of watching an exciting game of rugby on T.V.  
Peter's girlfriend walks in and changes the channel as she does everytime  
he is watching a good game. His girlfriend then says, lets watch the  
movie instead, it's supposed to be really good.

Q .1. Imagine that you are Peter in the same situation, what would you do ?

Why ?

Q .2. How anxious would you feel in this situation ?

0	1	2	3	4
not anxious	slightly anxious	quite anxious	very anxious	extremely anxious

Q .3. How angry would you feel in this situation ?

0	1	2	3	4
not angry	slightly angry	quite angry	very angry	extremely angry

Q . 4. How threatened would you feel in this situation ?

0	1	2	3	4
not threatened	slightly threatened	quite threatened	very threatened	extremely threatened

Q . 5. How frightened would you feel in this situation ?

0	1	2	3	4
not frightened	slightly frightened	quite frightened	very frightened	extremely frightened

Peter arrives home at 1am after a night out with his mates. They dropped him off as he was drunk, and had been disqualified from driving for a year, after a drinking driving offence. However Peter was hungry and wanted something to eat. He decided to risk it and drove to the local burger bar. Suddenly Peter saw a traffic patrol and was waved down by two traffic officers.

Q .1. Imagine you are Peter in the same situation, what would you do ?

Why ?

Q .2. How anxious would you feel in this situation ?

---

0	1	2	3	4
not anxious	slightly anxious	quite anxious	very anxious	extremely anxious

Q .3. How angry would you feel in this situation ?

---

0	1	2	3	4
not angry	slightly angry	quite angry	very angry	extremely angry

Q .4. How threatened would you feel in this situation ?

---

0	1	2	3	4
not threatened	slightly threatened	quite threatened	very threatened	extremely threatened

Q .5. How frightened would you feel in this situation ?

---

0	1	2	3	4
not frightened	slightly frightened	quite frightened	very frightened	extremely frightened



Peter arrives home unexpectedly one afternoon. As he walks in the door, he hears laughter coming from the bedroom. When Peter enters the bedroom, he finds his girlfriend in bed, with a friend of his.

Q .1. Imagine that you are Peter in the same situation, what would you do ?

Why ?

Q .2. How anxious would you feel in this situation ?

0	1	2	3	4
not anxious	slightly anxious	quite anxious	very anxious	extremely anxious

Q .3. How angry would you feel in this situation ?

0	1	2	3	4
not angry	slightly angry	quite angry	very angry	extremely angry

Q .4. How threatened would you feel in this situation ?

0	1	2	3	4
not threatened	slightly threatened	quite threatened	very threatened	extremely threatened

Q .5. How frightened would you feel in this situation ?

0	1	2	3	4
not frightened	slightly frightened	quite frightened	very frightened	extremely frightened

Peter is sitting on the edge of a cliff, and a crowd of men appear beside him  
One of the men, moves towards him.

Q .1. Imagine that you are Peter in the same situation, what would you do ?

Why

Q .2. How anxious would you feel in this situation ?

0	1	2	3	4
not anxious	slightly anxious	quite anxious	very anxious	extremely anxious

Q .3. How angry would you feel in this situation ?

0	1	2	3	4
not angry	slightly angry	quite angry	very angry	extremely angry

Q .4. How threatened would you feel in this situation ?

0	1	2	3	4
not threatened	slightly threatened	quite threatened	very threatened	extremely threatened

Q .5. How frightened would you feel in this situation ?

0	1	2	3	4
not frightened	slightly frightened	quite frightened	very frightened	extremely frightened

## APPENDIX I

## AUTOBIOGRAPHICAL QUESTIONNAIRE

## PERSONAL DETAILS

Age

Sex M / F

Marrital Status    S / D / M / De / Sep

## Current Relationship

Length of Relationship

Number of dependents

Race

Occupation

Current offence	Length of sentence.
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## PAST OFFENCES

First offence	Age
---------------	-----

### Details of prison sentences

Age	Offence committed	Sentence	Institution	Time served
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## FAMILY

1. How many children in your family ?
2. Where do you come ?
3. Are your parents still together? (Ask about separations and remarriages).

## 4. Occupation of MOTHER

## FATHER

5. How would you describe your family? e.g. close-knit , distant .

6. Were /are your parents happy together?

7 How did your MOTHER punish you as a child?

8. How did your FATHER punish you as a child?

9. How did your MOTHER reward you as a child?

10. How did your FATHER reward you as a child?

11. Did your parents set limits on your behaviour? If so what ?

How did you react?

12. Did your parents have problems of their own?

alcohol

drugs

gambling

depression

angry outbursts

physical abuse

sexual abuse

13. How did your mother and father react when you were

excited

happy

distressed

angry

depressed

14. How did you get on with your brothers and sisters?

## SCHOOL

15. Did you enjoy school?

16. Were you encouraged to do your homework?

17. Were you picked on at school?

18. Did you get into fights?

19. Did you frequently avoid classes?

20. What exams did you sit?

## HEALTH

21. Were you healthy as a child?

How did your parents react if you were ill?

## SPORTS

22. Did you play sports at school? If so were they individual or team

sports?

### INTERESTS/HOBBIES

- 23. Were you encouraged to pick up hobbies?
- 24. Did you have jobs to do around the house?
- 25. Did you receive regular pocket money?

### OCCUPATIONAL HISTORY

- 26. What is your current occupation?
- 27. What is your occupational history?

### GENERAL

- 28. Do you have a gang affiliation ?
- 29. Do you take drugs ? What ?
- 30. Do you drink alcohol ? How much ?
- 31. Do you have a past Psychiatric history ?

INFORMED CONSENT FORM

I, ..... understand that  
Robyn Curtis is a psychologist carrying out research  
within the prison.

The aims of the research have been explained to me as  
follows: to try to find out how prisoners think and feel  
in certain situations.

I have been told that I will be asked some questions and  
have to fill in some questionnaires. I have also been  
told that my part may take up to 1<sup>1/2</sup> - 2 hours at the  
most, although it may take less time.

I have also been told that all answers are anonymous and  
completely confidential and will in no way affect my  
sentence.

Signed .....